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JANUARY, 1966
VOLUME 69 NUMBER 1

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THE Pennsylvania MEDICAL JOURNAL

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LATE News HIGHLIGHTS

JANUARY, 1966

PMS BACKS FAMILY PLANNING MOVE

- **President William B. West,** speaking for the PMS, publicly praised the state Department of Public Welfare's move to make family planning information and medical services available to public assistance recipients requesting it. The 1964 PMS House of Delegates had urged such action. "We are pleased," Dr. West said, "to see the elimination of any deterrent to the availability of family planning services that are consistent with the individual patient's and physician's religious principles and with the highest medical and moral standards."

DOCTOR DRAFT

- The state's Selective Service unit will call **107 physicians** (born after January 1, 1934) into active military duty by January 15.

MEDICARE BILLING, PARTICIPATION

- The State Society Board of Trustees and Councilors endorsed the concept of **direct billing** for professional services under medicare's part B and officially recognized the advantage of **maximum participation** by the eligible aged in part B.

YOU AND MEDICARE

- Vital medicare information for the practitioner will be presented at the 1966 PMS **Officers' Conference** April 28-29 in Harrisburg by the federal medicare program chief and other experts.

LATE NEWS—IN BRIEF

- Former PMS President **Wilbur E. Flannery** is chairman of the PMS's reorganized long-range planning group, the Committee on Objectives . . . The state January 3 held a hearing on a proposal to make **paregoric** a prescription item under certain conditions . . . **S.S. HOPE,** overhauled and refitted, sets sail from Philadelphia for Nicaragua January 9 . . . Socioeconomic trends in medicine and the medicare progam are to be explored at the annual scientific session and dinner of the **Allegheny County Medical Society** January 15 in Pittsburgh . . . Blue Cross of Western Pennsylvania is seeking an average 17.68 percent **rate increase** that would affect about 55 percent of its subscribers . . . Newspapers report that twenty-five doctors in the **State College** area agree that the community should have its own hospital . . . The $7 million **Jefferson Medical College** building fund campaign went over the top . . . Johnson and Johnson gave the **University of Pennsylvania School of Medicine** $1.5 million for a clinical research building.

This Month

ORIGINAL PAPERS

IN THE INTERESTS OF FAMILY PLANNING

One of many oral contraceptives available is evaluated via controlled clinical study and follow-up. A Philadelphia obstetrician-gynecologist reports. Page 37.

TOWARD MAXIMAL AMPUTEE ACTIVITY

With Pennsylvania leading all states in total rehabilitations, the means and methods for evaluating, fitting, and coaching amputees are important aspects of the commonwealth's health services. Page 40.

THE CASE OF THE DISTURBED CHILD

When a child becomes unruly, where does the fault lie, and how can beneficial changes be effected? A Bryn Mawr child psychiatrist gives his views. Page 42.

BLOOD—HANDLE WITH CARE

Misconceptions regarding transfusions, and errors in the use of blood and plasma, can be life-threatening. Page 44.

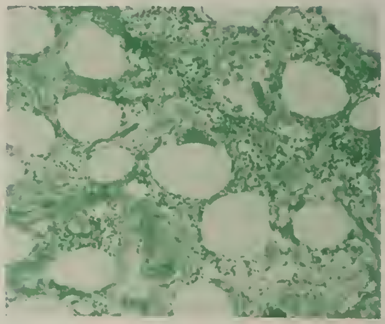
A DRUG AND ANGINA PECTORIS

On the basis of reported benefits from griseofulvin to nondermatologic conditions, two physicians conduct a double-blind study of the drug's effect on angina pectoris. Page 48.

LIFE SAVERS

Ten years after establishment of Pennsylvania's first poison-control center, this vital type of facility is evaluated in the light of present capabilities and future needs. Page 53.

In our February Issue:



MULTIPLICITY OF SYNDROMES

A clinicopathologic conference report describes and evaluates complex signs and symptoms in an elderly man, for thirty years a morphine addict. Drs. L. Murray Houser and A. Reynolds Crane present an unusual case.

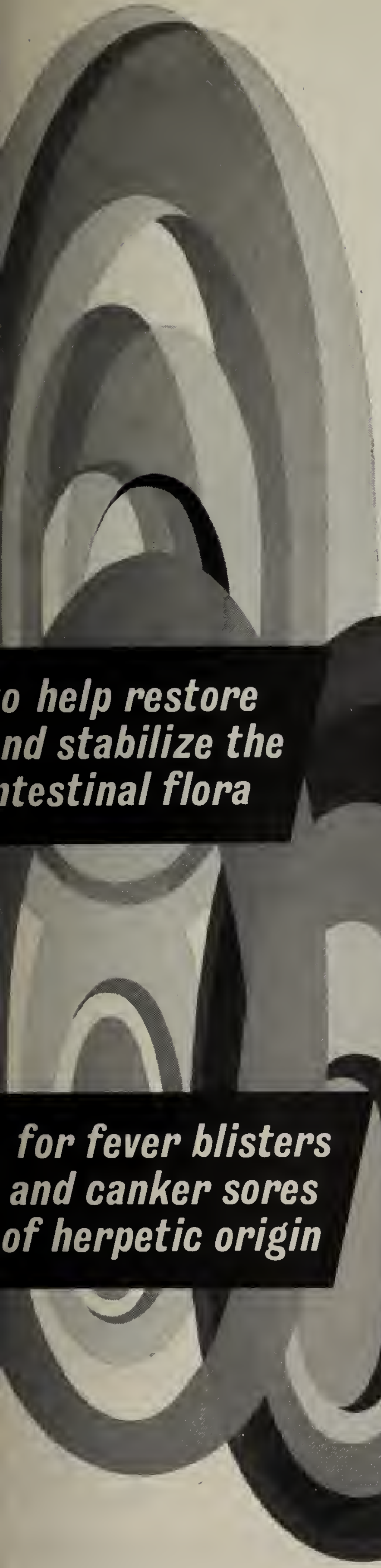
OTHER FEATURES

■ ■

Adapted Physical Education

■ ■

List of Poison Control Centers



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(1) Frykman, H.M.: Minn. Med., Vol. 38, Jan. 1955. (2) Poth, E.J.: The J.A.M.A., Vol. 163, No. 15, April 13, 1957. (3) McGivney, J.: Texas State Jour. of Med., Vol. 51, No. 1, Jan. 1955. (4) Stern, F. H.: Jour. of The Amer. Ger. Soc., Vol. 11, No. 3, Mar. 1963. (5) Weekes, D. J.: N.Y. State Jour. of Med., Vol. 58, No. 16, Aug. 1958. (6) Abbott, P.L.: Jour. of Oral Surg., Anes. & Hosp. Dental Serv., Vol. 19, July 1961. (7) Weekes, D. J.: E.E.N.T. Digest, Vol. 25, No. 12, Dec. 1963.

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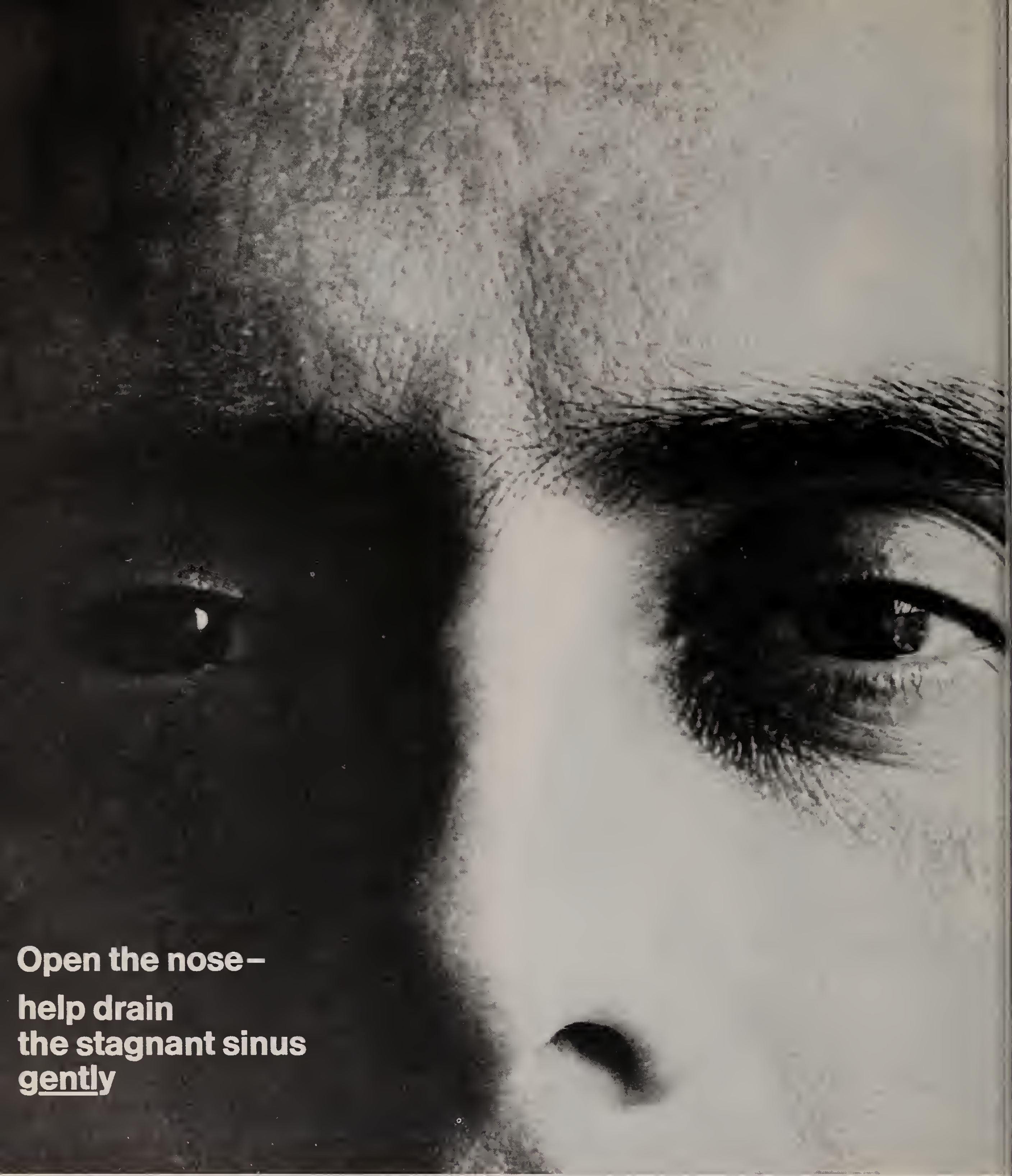

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*Proctor, D. F.: The Nose, Paranasal Sinuses, and Ears in Childhood, Springfield, Ill., Charles C Thomas, 1963, p. 34.

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JANUARY, 1966

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PENNSYLVANIA MEDICINE

Vascular Disease Symposium To Be Clinical Highlight Of Einstein's Centennial

A SYMPOSIUM on vascular disease March 28-30, part of the centennial observance of Albert Einstein Medical Center, is expected to attract some five hundred physicians to Philadelphia from throughout the nation.

Individual sessions will deal with such topics as diagnostic procedures, obstructive and inflammatory diseases of venous and lymphatic systems, aneurysm, arterial embolism, coagulation and biophysical aspects of vascular disease, renovascular hypertension, and extracranial cerebrovascular disease.

SESSION MODERATORS will include Drs. Michael E. DeBakey, Paul A. Owren, Irvine H. Page, Charles G. Rob, Israel Steinberg, and Travis Windsor.

Chairman of the event will be Aaron D. Bannett, M.D., an associate in surgery at Einstein.

THE CENTENNIAL observance began last September and will end in June. Einstein traces its origin to Philadelphia's Jewish Hospital and two other Philadelphia institutions, Mt. Sinai Hospital and Northern Liberties Hospital, which were merged to form the medical center.

Temple's New Development Program To Aid Hospital, Medical School

AN INTENSIVE care unit at Temple University Hospital, Philadelphia, will be one of the improvements resulting from the university's recently-announced $1,250,000 development program.

The program also will benefit the university's schools of medicine, dentistry, and pharmacy.

SOME $750,000 is earmarked for the hospital. Projects include new equipment for the department of radiology, renovation and expansion of the department of physical medicine and rehabilitation, establishment of a frozen-blood bank, and expansion of the departments of inhalation therapy and gastroenterology.

Development of two new departments (behavioral science and physical science), and establishment of three educational and service programs, are planned for the school of medicine.

PROGRAMS TO BE organized are in the field of community medical planning in cooperation with Woman's Medical College and eight area hospitals, in ambulatory medicine, and in child growth and development.

SPACE TALK—James Z. Appel, M.D., right, of Lancaster, president of the American Medical Association, holds model of General Electric's earth-orbiting biological laboratory. It was presented at an Industrial Nursing Symposium last month in Philadelphia for which Dr. Appel was keynote speaker. With him are Arthur W. Robinson of G.E.'s Valley Forge plant, left, and Stanley Gottlieb, M.D., chairman and moderatór of the symposium. Dr. Appel told the nurses that they have nothing to fear from automation and suggested that they should learn how to cope with change.

Hospital Utilization Manual Published

A MANUAL BASED on the Pittsburgh Hospital Utilization Project featured in a series of articles currently appearing in the JOURNAL, has been published by the University of Pittsburgh Press.

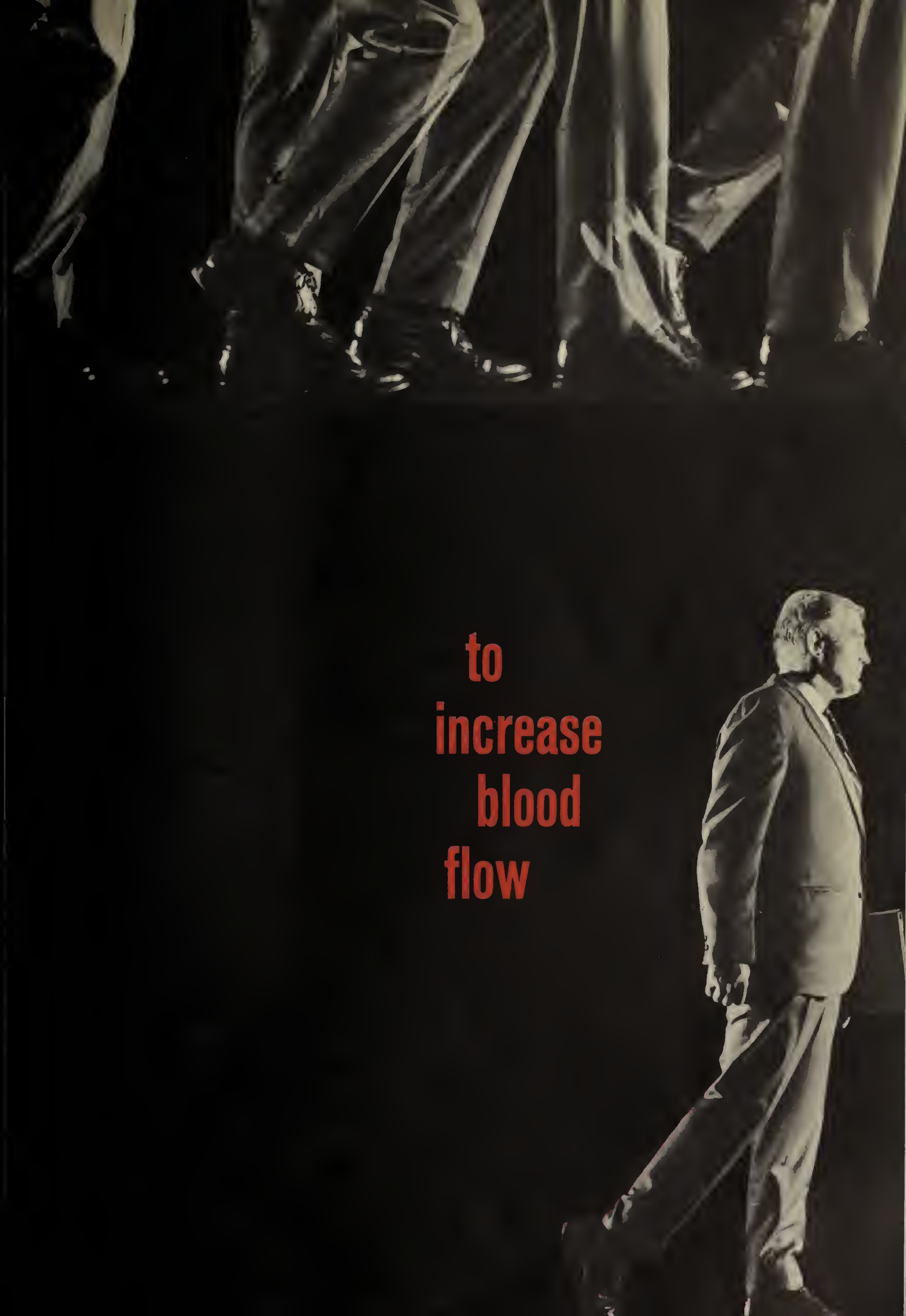
Authors of the manual, *A Method of Hospital Utilization Review,* are Sidney Shindell, M.D., HUP director, and Morris London, former associate director.

THE MANUAL is a definitive description of the methodology developed by HUP.

Part One presents an overview of the techniques employed. Part Two analyzes in detail each of the steps involved, showing the medical and data forms developed by HUP. The third part is the revised (1965) text of the pamphlet, *Guide to the Establishment and Functioning of a Medical Staff Utilization Committee.*

WITH UTILIZATION review a significant part of medicare, the manual is said to be of special value to physicians, hospital administrators, and others concerned with hospital matters.

■ **JANUARY IS UNITED CEREBRAL PALSY MONTH**


to
increase
blood
flow

to increase blood flow

IN CEREBROVASCULAR INSUFFICIENCY

leading to such symptoms as mental confusion, diplopia, vertigo and lightheadedness.

IN PERIPHERAL VASCULAR DISEASES

where ischemia causes pain, spasm, ache, intermittent claudication; also coldness, numbness or ulceration of extremities.

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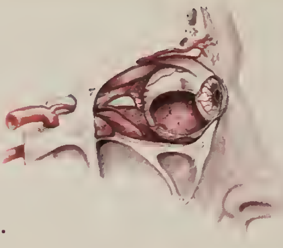
where decreased blood flow results in hearing loss (sudden onset), tinnitus, or vertigo.

IN CIRCULATORY DISORDERS OF THE EYE

in which vasospasm and impaired circulation are factors.



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COLLECTOR'S ITEM—Displaying a pocket set of surgical instruments from a bygone day is Dr. Irwin Richman, chief of the Science, Industry, and Technology section of the new William Penn Museum, Harrisburg. The antique "tools of the profession" were donated for display in the medical history exhibit which Dr. Richman and his colleagues hope to open to the public this spring. Physicians or laymen owning items reminiscent of Pennsylvania medical history which they are willing to give or lend for the exhibit, are asked to contact Dr. Richman at the museum. A representative will evaluate the item for possible inclusion in the display. The State Society appropriated funds to finance the project, which is aided by a special PMS advisory committee.

PaMPAC Wins Three National Awards

PENNSYLVANIA'S Medical Political Action Committee (PaMPAC) last month won all three annual awards of its parent national organization.

It was the first time that a state political action committee had won all of the awards of the American Medical Political Action Committee (AMPAC).

THE CITATIONS were announced at the clinical session of the American Medical Association in Philadelphia.

PaMPAC won awards for:

1. The highest per capita dollar contribution to AMPAC.

2. The highest total dollar contribution.

3. The greatest number of AMPAC memberships in a state. in relation to total physician population.

• **THE NEW MEDICARE LAW** provides payment for such medicines as "Bugle weed," "Black Widow Spider mixture," "Skunk Poison," and "Mexican Peyote."

An 'Emergency' Demonstrates A 'Code Blue' Alert on TV

THE SPEED and effectiveness of a resuscitation team at Lancaster General Hospital has been telecast throughout a three-state area to demonstrate a vital community hospital service.

The television showing of the hospital's "Code Blue" alert was arranged after an exhibit on the cardiac resuscitation procedure won a State Society exhibit award at Session '65 in Atlantic City.

TELEVISION cameramen covered the simulated emergency, from the telephone switchboard through the teamwork on the "patient." An announcer read a prepared script as the film was shown over two area television stations.

Drs. J. Howard Esbenshade and John H. Esbenshade, Jr., staff physicians, prepared the exhibit.

• **BOY SCOUTS** restored the grave site of Clearfield County's first physician, Samuel Coleman. A stone erected by the Clearfield County Medical Society in 1887 marks the grave. Representing the society at the completion of the restoration was the county's oldest active member, eighty-eight-year-old William C. Browne, Curwensville.

HIGHLY PRACTICAL NURSES—Maurice P. Coffee, Jr., director of the Jefferson Medical College Hospital of Philadelphia, chats with two outstanding graduates at the first annual commencement exercises of the institution's new school of practical nursing. Miss Sandra L. Endicott, left, was president of the first class and received the Hospital Administration Award for high scholastic average during her course. Miss Sarah Gayle Richardson received the top honor, the Trustee Award for outstanding ability in applying the principles of nursing.

At Pittsburgh, Programmed Learning On the Musculoskeletal System

THE DEPARTMENT of Orthopedic Surgery at the University of Pittsburgh School of Medicine is preparing a programmed course for third-year students, on the musculoskeletal system, to test the application of using this process in medical education.

The Commonwealth Fund, which helps support the program, said the aim of the course is to provide all students with a sound understanding of the basics of the subject, so that they and their teachers can make the most of the clinical sessions devoted to orthopedic surgery.

Pittsburgh's course is being prepared on film rather than in book form. To be completed in about two years, it will be made available to other institutions.

LANKENAU EXPANSION—This new nursing education building of Philadelphia's Lankenau Hospital (foreground) was officially opened last month. The $1.1 million structure includes—in some 30,000 feet of floor space—offices, classrooms, laboratories, conference and assembly rooms, and dormitory facilities.

DEPROL®

meprobamate 400 mg. +
benactyzine hydrochloride 1 mg.

Indications: 'Deprol' is useful in the management of depression, both acute (reactive) and chronic. It is particularly useful in the less severe depressions and where the depression is accompanied by anxiety, insomnia, agitation, or rumination. It is also useful for management of depression and associated anxiety accompanying or related to organic illnesses.

Contraindications: Benactyzine hydrochloride is contraindicated in glaucoma. Previous allergic or idiosyncratic reactions to meprobamate contraindicate subsequent use.

Precautions: *Meprobamate*—Careful supervision of dose and amounts prescribed is advised. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction; withdraw gradually after use for weeks or months at excessive dosage. Abrupt withdrawal may precipitate recurrence of preexisting symptoms, or withdrawal reactions including, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, the dose should be reduced and operation of motor vehicles or machinery or other activity requiring alertness should be avoided if these symptoms are present. Effects of excessive alcohol may possibly be increased by meprobamate. Grand mal seizures may be precipitated in persons suffering from both grand and petit mal. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side effects: Side effects associated with recommended doses of 'Deprol' have been infrequent and usually easily controlled. These have included drowsiness and occasional dizziness, headache, infrequent skin rash, dryness of mouth, gastrointestinal symptoms, paresthesias, rare instances of syncope, and one case each of severe nervousness, loss of power of concentration, and withdrawal reaction (status epilepticus) after sudden discontinuation of excessive dosage.

Benactyzine hydrochloride—Benactyzine hydrochloride, particularly in high dosage, may produce dizziness, thought-blocking, a sense of depersonalization, aggravation of anxiety or disturbance of sleep patterns, and a subjective feeling of muscle relaxation, as well as anticholinergic effects such as blurred vision, dryness of mouth, or failure of visual accommodation. Other reported side effects have included gastric distress, allergic response, ataxia, and euphoria.

Meprobamate—Drowsiness may occur and, rarely, ataxia, usually controlled by decreasing the dose. Allergic or idiosyncratic reactions are rare, generally developing after one to four doses. Mild reactions are characterized by an urticarial or erythematous, maculopapular rash. Acute nonthrombocytopenic purpura with peripheral edema and fever, transient leukopenia, and a single case of fatal bullous dermatitis after administration of meprobamate and prednisolone have been reported. More severe and very rare cases of hypersensitivity may produce fever, chills, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, anaphylaxis, stomatitis and proctitis. Treatment should be symptomatic in such cases, and the drug should not be reinstituted. Isolated cases of agranulocytosis, thrombocytopenic purpura, and a single fatal instance of aplastic anemia have been reported, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity has been reported, usually after excessive meprobamate dosage. Suicidal attempts may produce lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

Dosage: Usual starting dose, one tablet three or four times daily. May be increased gradually to six tablets daily and gradually reduced to maintenance levels upon establishment of relief. Doses above six tablets daily are not recommended even though higher doses have been used by some clinicians to control depression and in chronic psychotic patients.

Supplied: Light-pink, scored tablets, each containing meprobamate 400 mg. and benactyzine hydrochloride 1 mg.

Before prescribing, consult package circular.

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s a problem
in the

complex

TRY DEPROL® –

meprobamate 400 mg. + benactyzine hydrochloride 1 mg.

A LOGICAL FIRST CHOICE

usually restores
normal sleep quickly
by helping
to lift depression...
calm associated anxiety,
tension, and rumination

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CD-5726

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Each tablet contains: Codeine Phosphate gr. ½ (Warning—May be habit forming), Phenacetin gr. 2½, Aspirin gr. 3½, Caffeine gr. ½.

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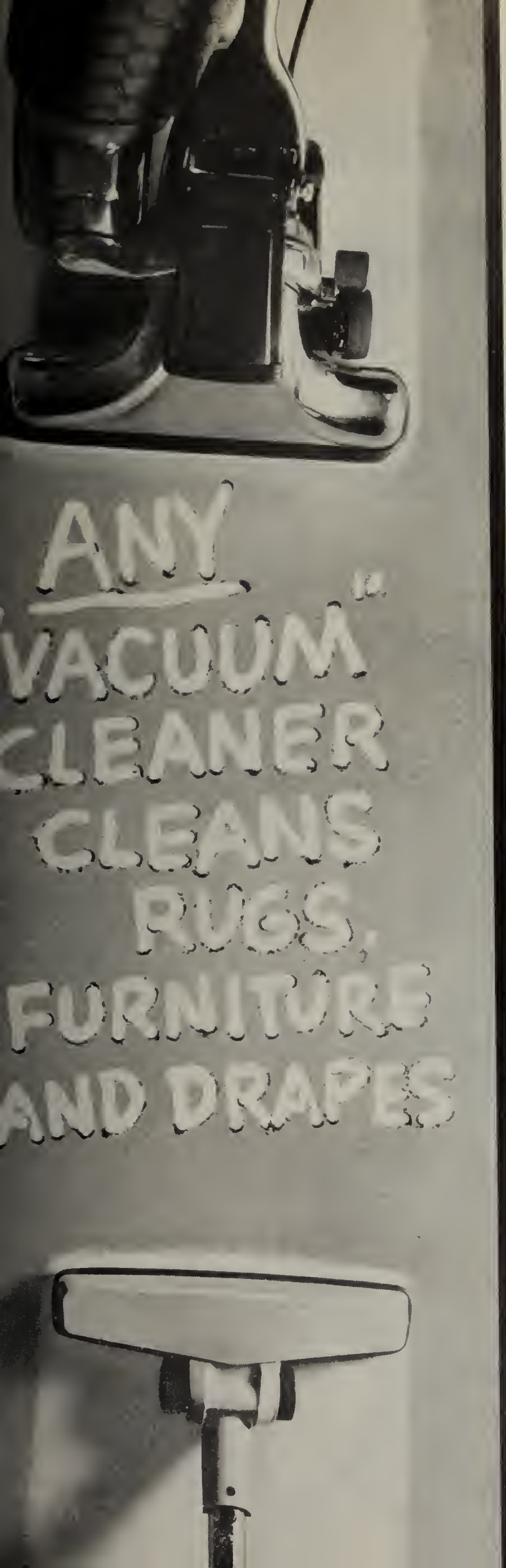
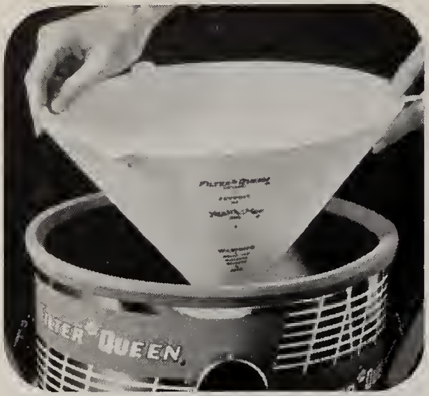


Only
Filter Queen
cleans the
air, too!

Proof? See inside—

DRAMATIC TEST PROVES FILTER QUEEN TRAPS



1 Place a fresh Sanitary Filter Cone in the FILTER QUEEN container. (It takes only a moment to open the machine and replace the old Filter Cone.)

2 Now unfold a clean white handkerchief and drop it into the Sanitary Filter Cone. (Even the daintiest, sheerest handkerchief may be used with perfect safety.) Then replace the turret top on the container.

3 Now turn the machine over to any one witnessing the demonstration, and have her start the machine and apply the nozzle to any place where there is obvious dirt and dust. Keep the machine operating for a full minute.

See the proof with the FILTER QUEEN *"clean handkerchief" test*

4 Remove the top of the container, and lift out the handkerchief. You'll find it spotless as it was when it went in! (Where did the dirt go? Look in the bottom of the container.)

NO DUST ON HANDKERCHIEF

filter traps dirt in container

DUST AS NO "VACUUM CLEANER" CAN!

Revolutionary...and in a class by itself!

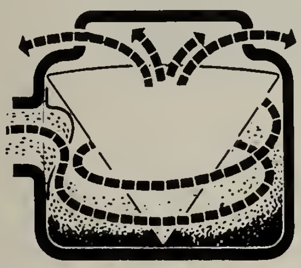
FILTER QUEEN

has the scientific cleaning features that hospitals need most

All "vacuum" cleaners were much the same until the FILTER QUEEN SANITATION SYSTEM was designed. FILTER QUEEN'S patented Sanitary Filter Cone eliminates the need for messy bags, traps practically all airborne contaminants passing into the machine (Harvard Medical School Report in Journal of the American Medical Association, November 25, 1958).*

Experienced hospital housekeepers know this well. That is why FILTER QUEENS have replaced every type of vacuum cleaner in hundreds of hospitals throughout the world.

FILTER QUEEN has no porous bag that permits dust and dirt to reenter the room. FILTER QUEEN operates on an entirely different principle, "Cyclonic Cleaning Action." Here's how it works: Inrushing air, laden with dirt and dust, is deflected by a patented inlet guide as it enters the container; then is whirled by centrifugal force away from the cone. Dust and dirt are dropped to the bottom of the container. (See illustration.) Air, being lighter, is funnelled to the center of the "cyclone," filters through the Sanitary Filter Cone and returns to the room dust-free.



Why not ask your local FILTER QUEEN Distributor to make the dramatic handkerchief test (pictured at left) in your hospital? There is no better way to prove the improvement in cleaning ability between a FILTER QUEEN SANITATION SYSTEM and any type of vacuum cleaner. (You'll find your distributor listed in the Yellow Pages; or write Health-Mor, Inc. direct).

***We will be glad to send you a reprint of this report on request.*

What hospital administrators say about FILTER QUEEN

"I heartily recommend to any hospital administrator who is presently unhappy with the type of cleaning machine in use, that he try FILTER QUEEN for only two days and the machine will sell itself."

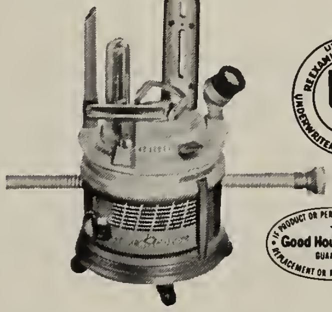
"The FILTER QUEEN is great—a very important factor in patient areas, and is constructed so as to prevent air turbulence of dust at floor level. Filtering of the air, while in general operation, is also a very important and desirable factor."

"One of the most pleasing features of the machine is its quietness. We can even clean in the rooms while occupied by the patients, and many have commented on how pleasant it is not to be disturbed by noisy, old-fashioned vacuum cleaners anymore."

"The air exhaust at the top of the unit is a wonderful feature, and the Sanitary Filter Cone is certainly our answer for working in closely confined patient areas."

"We thought we had a clean hospital and a fairly good method of achieving acceptable sanitation, but this little machine made us revise our thinking and our methods."

"A quiet motor which possesses excellent cleaning power and the convenience of having to clean out the cleaning compartment only once a month, has proved very advantageous. One of the most important points . . . is that there is no bag to empty."



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M.D.'s IN THE NEWS

HARRY E. BACON, M.D., Philadelphia, addressed the St. Louis Academy of General Practice on October 30, under sponsorship of the American Cancer Society. The following week, he was a guest speaker at the Buffalo Academy of Medicine, and also at a meeting of the Colostomy-Ileostomy Rehabilitation Association of Philadelphia.

Harry W. Wilcke, III, M.D., Hatboro, received a 1965 Mead Johnson scholarship for continuing residency training in anesthesiology.

Irene Y. Lin, M.D., South Mountain, employed as clinical assistant at the Samuel G. Dixon State Hospital for the past six years, has been promoted to physician II, the Pennsylvania Health Department has announced.

The new head of the neurology section at Hahnemann Medical College and Hospital is **Elliott L. Mancall, M.D.**, Philadelphia.

DR. SUTNICK

Alton I. Sutnick, M.D., has been named research physician at The Institute for Cancer Research, Fox Chase. **Timothy R. Talbot, Jr., M.D.**, institute director, announced the appointment. Dr. Sutnick had most recently been an associate in medicine at the Temple University School of Medicine, teaching courses in internal medicine and cardiology. A graduate of the University of Pennsylvania School of Medicine, he is a member of Sigma Xi, Phi Beta Kappa, Alpha Omega Alpha, the American Thoracic Society, the New York Academy of Sciences, and the American Federation for Clinical Research. He is a Fellow of the American College of Physicians and of the College of Physicians of Philadelphia.

After presenting two papers before the International Congress of Pediatrics in Tokyo, **Thomas F. McNair Scott, M.D.**, Philadelphia, reported to the University of Tel Aviv, Israel, where he will serve until March, 1966, on the faculty of continuing medical education.

Walter R. Eberlein, M.D., Philadelphia, was a panel participant at the Sixth Pan-American Congress of Endocrinology, in Mexico City.

Pennsylvania physicians active in the American Society of Internal Medicine include: President-elect **Wendell B. Gordon, M.D.**, and **Alexander M. Minno, M.D.**, both of Pittsburgh; **Jerome Chamovitz, M.D.**, Sewickley; and **Drs. Wallace G. McCune, Sidney O. Krasnoff, and George E. Farrar, Jr.**, all of Philadelphia.

TUMOR DAY—These were the program participants in a Tumor Day program at Misericordia Hospital, Philadelphia, November 10, on "Lymphomas and Leukemias" attended by some three hundred physicians and paramedical personnel. Left to right, Drs. Joseph Strawitz, James L. Tullis, C. Jules Rominger, Doris Howell, R. Philip Custer, Joseph A. Hesch, and Richard P. Baker.

Salvador Minuchin, M.D., has been named professor of clinical child psychiatry at the University of Pennsylvania School of Medicine, and director of the Philadelphia Child Guidance Clinic. He comes to Philadelphia from New York City, where since 1962 he has been director of the family research unit at the Wiltwyck School for Boys.

Jack D. Myers, M.D., Pittsburgh, was a guest faculty member of the fifteenth annual Milwaukee Medical Conference.

Harold C. Eaton, M.D., superintendent of the Harrisburg State Hospital, has been serving as acting head of the Philadelphia State Hospital until a permanent replacement can be found for **Eugene L. Sielke, M.D.**, who retired in November.

Participating in the thirty-fourth postgraduate assembly of the Harrisburg Academy of Medicine in November were: **Drs. Edwin R. Fisher**, Pittsburgh, and **John R. Durant** and **Arthur J. Weiss**, both of Philadelphia. Assisting **George L. Jackson, M.D.**, in assembly arrangements were: **Drs. William J. Savory, William S. Gordon, Edward H. Eaton, Robert B. Edmiston,** and **Robert E. Barto, Jr.**, all of Harrisburg. The topic for consideration was "Chemotherapy of Cancer."

More than seven hundred persons—many of whom had been delivered at birth by the honored guest—attended a testimonial dinner for **Harry W. Croop, M.D.**, Kingston, celebrating his fifty years of practice in the area.

Receiving a Gairdner Foundation International Award of $5,000 recently was **Daniel J. McCarty, M.D.**, Philadelphia, associate professor of medicine and head of the section of rheumatology at Hahnemann Medical College and Hospital.

At a meeting of the Fayette County Medical Society, **Jan Karolcik, M.D.**, Uniontown (formerly of Perryopolis), received an honorary membership from the Czechoslovak Medical Society. Dr. Karel Duda, ambassador from Czechoslovakia, made the presentation.

Newly-elected as commissioner of O'Hara Township is **William J. Barnes, M.D.**, Pittsburgh.

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. . . are relieved by direct musculotropic action with

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Trocinate (Thiphenamil HCl) has been found in three clinical studies, (J. Mo. Med. Assoc., 48:685-6; Med. Rec. & Annals, 43:1104-6; J. Urol., 73:487-93), to be effective and to be free of side-effects. Fifteen years of wide clinical usage has affirmed the safety and effectiveness of Trocinate.

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POSTGRADUATE COURSES

ABINGTON

(These courses are held at Abington Memorial Hospital, Abington 19001.)

Applied Office Psychiatry for Medical Practitioners, on Wednesdays, February 2 through April 20, 7–9 P.M.; 24 hours AAGP. Contact William S. Carter, Jr., M.D., at the hospital.

Basic Science and New Techniques in Medical Disease, first Tuesday of each month, through June, 4 P.M.; 10 hours AAGP. Contact P. M. Roediger, M.D., at the hospital.

ALLENTOWN

(These courses are held at Allentown Hospital, 9 A.M.–12:30 P.M., on dates indicated; each 3 hours AAGP.)

Obstetrics and Gynecology (Applied Pelvic Anatomy),* January 13.

Obstetrics and Gynecology,* February 10.

ALTOONA

(These courses are held at Altoona Hospital, 10 A.M.–12:30 P.M., on dates indicated; each 3 hours AAGP; fee, $5.00.)

Graphic Tracings in Cardiology,* January 6.

The Patient in Intractable Cardiac Failure,* January 20.

Changing Concepts of Hypertension,* February 3.

Radiology in Cardiac Diagnosis,* February 17.

The Evaluation of Pulmonary Function,* March 3, (2 hours AAGP).

Obstructive Pulmonary Disease,* March 17 (2 hours AAGP).

BETHLEHEM

(These courses are held at St. Luke's Hospital, 8:30 A.M.–12 M., on dates indicated; each 3 hours AAGP.)

Electrocardiography,* January 20; fee, $7.00.

Diabetes (Current Concepts of Etiology),* February 17; fee, $7.00.

BRYN MAWR

(These courses are held at the Bryn Mawr Hospital.)

Microbiology Now, January 20, 9:30 A.M.

Antibiotics: Use in the Surgical Patient, January 21, 4:30 P.M.

JOHNSTOWN

(These courses are held at Conemaugh Valley Memorial Hospital, 10 A.M.–12 M., on dates indicated; each 2 hours AAGP.)

Mammography and Thermography in Diagnosis of Breast Cancer,* January 15.

Intestinal Obstruction,* February 19.

Newer Antibiotics,* March 19.

LANCASTER

Medical Seminars, Lancaster General Hospital and Temple University Medical Center, at Lancaster Hospital; no registration fee; luncheon, seventy-five cents; AAGP accreditation; meet at 11 A.M., each date; January 6, "Genetic Counseling"; January 19, "The Evaluation of the Bleeding Patient"; February 3, "Office Eye Emergencies"; February 16, "Limp: A Review of Common Causes in Children and Adults"; March 3, "Current Concepts of the Treatment of Ulcerative Colitis"; March 16, "Patients Who Trouble You"; April 7, "Advantages of Limited Gastrectomy and Vagotomy in the Treatment of Peptic Ulcer." Subsequent dates and subjects to be listed in future JOURNALS. Contact Henry W. Miller, M.D., 525 North Duke Street (17602). (Some sessions already held.)

McKEES ROCKS

(These courses are held at Ohio Valley General Hospital, 9 A.M.–12:15 P.M., on dates indicated.)

Postgraduate Seminars for Physicians, 15 hours AAGP. Contact N. O. Cattell, The Pennsylvania State University, University Park 16802, for dates in January, March, and May.

Peripheral Vascular Diseases,* January 26; fee, $6.00; 3 hours AAGP.

PHILADELPHIA

Microsurgery of the Temporal Bone, Temple University School of Medicine, first week of each month. Contact B. J. Ronis, M.D., Temple University School of Medicine, Broad and Ontario Streets (19140).

Cardiac Seminar, Germantown Hospital and Philadelphia AGP, at the hospital on Wednesdays, through June, 12:30 P.M.; 36 hours AAGP. Contact B. W. Jenkins, M.D., Germantown Hospital, East Penn and East Wister Streets (19144).

Cardiac Seminar, Germantown Hospital and Philadelphia AGP, at Germantown Hospital on Tuesdays, through June, 12:30 P.M. Contact John Helwig, Jr., M.D., Germantown Hospital, address above.

Diseases of the Thyroid Gland,* Jefferson Medical College, on Tuesdays, February 1 through March 8, 8–10 P.M.; fee, $40; 12 hours AAGP.

Basic Electrocardiography (course under way), at Albert Einstein Northern Division,† on Wednesdays, through February 9, 2–5 P.M.

Detection and Management of Chronic Kidney Disease, at Albert Einstein Northern Division,† March 2 and 9, 9 A.M.–12:30 P.M.; fee, $10; 7 hours AAGP.

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* These courses sponsored by Jefferson Medical College and The Pennsylvania State University. For further course information, contact J. H. Killough, M.D., 1025 Walnut Street, Philadelphia 19107.

† For all Einstein courses, contact L. J. Zimet, Albert Einstein Medical Center, Philadelphia 19141.

Modern Concepts in Hematology, at Albert Einstein Southern Division,† on Wednesdays, January 12–March 16, 2–5 P.M.; fee, $60; 30 hours AAGP.

Advanced Electrocardiography, at Albert Einstein Southern Division,† on Wednesdays, February 16–April 20, 1–4 P.M.; fee, $60; 30 hours AAGP.

Applied Office Psychiatry and Psychosomatic Medicine, Temple University Medical Center (course under way), on Wednesdays, through February 23, 10 A.M.–3 P.M.; 80 hours AAGP. Contact H. K. Fischer, M.D., 100 West Coulter Street (19144).

Psychiatry and the Art of Medicine (course under way), Hospital of the University of Pennsylvania, Department of Psychiatry, on Wednesdays, through February 2, 2:30 P.M.–5 P.M.; fee, $40. Contact R. R. Pottash, M.D., Barclay Building, Bala Cynwyd (19004).

Current Concepts of Infectious Diseases, American College of Physicians, at Jefferson Medical College, February 7–10; fee, ACP members—$60, nonmembers—$100. Contact E. C. Rosenow, Jr., M.D., 4200 Pine Street (19104).

Clinical Symposium on Vascular Disease,* at Albert Einstein Medical Center, March 28–30, 9 A.M.; 15 hours AAGP. Contact A. D. Bennett, M.D., Einstein Medical Center, York and Tabor Roads (19141).

Family, Sex, and Marriage Problems in General Practice,* at Philadelphia Marriage Council on Wednesdays, March 30–May 4, 3:30–5:30 P.M.; 12 hours AAGP. Contact Martin Goldberg, M.D., School of Medicine, University of Pennsylvania (19104).

Arterial Occlusive Disease (Sixteenth Hahnemann Symposium),* at Marriott Motor Hotel, April 20–23. Contact Miss Sage Rosen, 230 North Broad Street (19102).

POTTSVILLE

(These courses are held at Pottsville Hospital, 11:30 A.M.–2 P.M., on dates indicated.)

Congestive Heart Failure,* January 13; 2 hours AAGP.

Diagnosis and Treatment of Lymphomas and Leukemia,* February 10; 3 hours AAGP.

The Treatment of Obesity,* March 10; 3 hours AAGP.

SCRANTON

(These courses are held at Mercy Hospital, 9:30 A.M.–12 M., on dates indicated; each 3 hours AAGP.)

Medical Complications of Pregnancy,* January 19.

Problems in Antibiotic Therapy,* February 16.

Management of Renal Failure,* March 16.

WILKES-BARRE

(These courses are held at Wilkes-Barre General Hospital, 9 A.M.–12 M., on dates indicated; each 3 hours AAGP.)

Medical Complications of Pregnancy,* January 20.

Problems in Antibiotic Therapy,* February 17.

Management of Renal Failure, March 17.

WILLIAMSPORT

(These courses are held at Williamsport Hospital, 10 A.M.–3:30 P.M., on dates indicated; fee, each course, $4.00; each 4 hours AAGP.)

Electrolyte Problems in Medicine and Surgery,* January 19.

Medical and Surgical Aspects of Hypertension,* February 16.

Gastrointestinal Bleeding: Medical and Surgical Approach,* March 16.

YORK

(These courses are held at York Hospital, 9:30 A.M.–12 M., on dates indicated; fee, each course, $6.00; each 2 hours AAGP.)

Pancreatitis,* January 6.

Polycythemic States,* January 13.

External Cardiac Massage and Resuscitation Procedures,* January 20.

Toxemia of Pregnancy,* January 27.

Problems of Sexual Development in the Male,* February 3.

Do's and Don't's of the Modern Approach to Burns,* February 10.

Anaphylaxis and Sensitivity Reactions,* February 17.

The Pulmonary Cripple and His Daily and Hospital Management,* February 24.

(These courses 3 hours AAGP):

Consecutive Case Conference—Peptic Ulcer,* March 3.

Physiology of Menstruation and Its Relation to Contraception and the Menopause,* March 10.

Neurological Manifestations of Malignant Disease,* March 17.

Rickettsial Disease in the United States,* March 24.

Iron Metabolism and Its Disorders,* March 31.

● **About This Section:** We publish this list monthly to alert PMS members to postgraduate education opportunities. To be publicized, courses must be one-half day (three hours) or more in length, designed for licensed doctors of medicine, and of interest to physicians in an area of several counties or more. Organizations offering courses meeting these qualifications may submit items for publication. Information must be received by the first day of each month, to appear the following month. Each item will appear no more than four times. Address: Commission on Medical Education, 230 State Street, Harrisburg 17105.

MEETINGS

PENNSYLVANIA MEDICAL SOCIETY

JANUARY

Committee on Discipline—Marriott Motor Hotel, Philadelphia, January 9.

Board of Trustees and Councilors—Penn Harris Motor Inn, Harrisburg, January 19-20.

APRIL

Officers' Conference—Penn Harris Hotel, April 28, 29.

OCTOBER

One Hundred Seventeenth Annual Session—Penn Sheraton Hotel, Pittsburgh, October 11-14.

REGIONAL

MARCH

College of Physicians of Philadelphia and New York Academy of Medicine, joint meeting of otolaryngology sections—College of Physicians, Philadelphia, March 16.

TRAUMA COURSE

under the auspices of

THE PHILADELPHIA REGIONAL COMMITTEE ON TRAUMA

of

AMERICAN COLLEGE OF SURGEONS

Bellevue Stratford Hotel,

Philadelphia, Pennsylvania

March 17-19, 1966

Principal Speakers

DR. JORG BOHLER . . . . *Austria*

DR. LLOYD GRIFFITHS . . . . *England*

Supplemented by American Authorities

Fee $50 (Residents, Interns, Students, $10)

(Enrollment limited)

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Philadelphia, Pa. 19144

NATIONAL

JANUARY

Second Annual "Law in Medicine" Series—Rockwell Hall, Duquesne University, Pittsburgh, Wednesdays, 7:30–9:30 P.M., January 5–March 23.

American Group Psychotherapy Association, Inc.—Bellevue Stratford Hotel, Philadelphia, January 27-29.

Clinical Conference (Diabetes), American Diabetes Association and Johns Hopkins and George Washington universities' schools of medicine—Mayflower Hotel, Washington, D. C., January 19–21.

MARCH

American Surgical Association—Boca Raton Hotel, Boca Raton, Florida, March 23-25.

New Nursing College to Open in Chester this Fall; Other News

A NEW COLLEGE in Chester, offering a four-year program leading to a bachelor of science degree in nursing, will open for classes in September.

Crozer Foundation will operate the school, which will admit some fifteen freshmen and fifteen junior transfers this year. Both male and female students will be accepted.

GORDON W. THOMAS, M.D., surgeon and superintendent of the International Grenfell Association in Newfoundland, will address the faculty and students of Temple University School of Medicine January 19 at 4 P.M., on "Labrador Medicine." The professional public is invited.

THE DEPARTMENT of Psychiatry of Hahnemann is conducting three lecture seminar series for general practitioners this winter. A series of seminars on basic psychiatry is held on Wednesdays, from 1 to 3 P.M. Another, devoted to the problems of women, is held Thursday evenings. Also on Wednesdays, from 1 to 3 P.M., is a twelve-part seminar series on management of the patient by means of a dynamic understanding of the patient's problem.

HAHNEMANN also announced that fellowships are available for one or two years of research training in electrocardiography and vectrocardiography, echocardiography, myocardial metabolism and electrophysiology, and cardiac catheterization. Write Bernard Segal, M.D., Hahnemann Medical College and Hospital, 230 North Broad Street, Philadelphia 19102.

A SAMA-SQUIBB Scientific Exhibit awards program will be conducted in 1966 to recognize communication through the use of the scientific exhibit.

SYMPOSIUM ON VASCULAR DISEASE

Sponsored by the Albert Einstein Medical Center
Philadelphia

MARCH 28, 29 and 30, 1966
Bellevue-Stratford Hotel

MODERATORS: Michael E. DeBakey, M.D.; Paul A. Owren, M.D.; Irvine H. Page, M.D.; Charles G. Rob, M.D.; Israel Steinberg, M.D.; Travis Winsor, M.D.

PARTIAL LIST OF PARTICIPANTS: Bernard J. Alpers, M.D.; Stanley Baum, M.D.; Joseph E. Beninson, M.D.; Ralph A. Deterling, M.D.; Edward A. Edwards, M.D.; Richard H. Greenspan, M.D.; Elisha S. Gurdjian, M.D.; Henry Haimovici, M.D.; John H. Laragh, M.D.; Robert R. Linton, M.D.; John S. Meyer, M.D.; J. F. Mustard, M.D.; Eugene F. Poutasse, M.D.; Philip N. Sawyer, M.D.; Sol Sherry, M.D.; Frank C. Spencer, M.D.; Thomas A. Stamey, M.D.; Sidney Wallace, M.D.; and Roe E. Wells, M.D.

Aaron D. Bannett, M. D., Symposium Chairman
Albert Einstein Medical Center
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NEW FROM TUTAG for fast, emphatic diuretic action with a balanced excretion of sodium and chloride and a lower potassium loss under normal dosage and diet regimen.

DIURETIC ACTION: Clinically, the oral administration of AQUATAG (benzthiazide) results in diuretic activity within two hours with maximal natriuretic, chloruretic, and diuretic effects occurring during the fourth, fifth and sixth hours. Maintenance of response continues for approximately 12 to 18 hours. Acidosis is an unlikely complication since therapeutic doses of AQUATAG (benzthiazide) do not appreciably increase bicarbonate excretion. Edematous patients receiving 50 mg. of AQUATAG (benzthiazide) daily for five days developed a maximal increase in the rate of sodium excretion on the first day, and maintained this high rate until depletion of excessive body stores of sodium.

In congestive heart-failure patients, AQUATAG (benzthiazide) produced the same weight loss, during a 48-hour treatment period as did a maximally effective dose of hydrochlorothiazide.

DOSAGE: Diuresis, initially 50 to 200 mg.; maintenance 25 to 150 mg., daily. Hypertension 50 to 100 mg. initially, adjusted to 50 mg. t.i.d. or downward to minimal effective dosage level.

PRECAUTIONS AND SIDE EFFECTS: Electrolyte imbalance with hypokalemia, hypochloremic alkalosis and hyponatremia may occur. Other reactions may include blood dyscrasias, hyperuricemia and gout, nausea, jaundice, anorexia, vomiting, diarrhea, dizziness, paresthesia, photosensitivity and headache. Insulin requirements may be altered in diabetes.

WARNINGS: Dosage of coadministered antihypertensive agents should be reduced by at least 50%. Use with caution in edema due to renal disease; advanced hepatic disease or suspected presence of electrolyte imbalance. Stenosis or ulcer of small intestine have been reported with coated potassium formulas and should be administered only when indicated. Until further clinical experience is obtained, the use of the drug in pregnant patients should be carefully weighed against possible hazards to the fetus.

CONTRAINDICATIONS: AQUATAG (benzthiazide) is contraindicated in progressive renal disease or disfunction including increasing oliguria and azotemia. Continued administration of this drug is contraindicated in patients who show no response to its diuretic or antihypertensive properties.

Before prescribing or administering, read the package insert or file card available on request.

Available as 25 or 50 mg. scored tablets.

Request clinical samples and literature on your letterhead.

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Announcing

EUTRON™

pargyline hydrochloride 25 mg. and methyclothiazide 5 mg.

for control of moderate to severe hypertension

Unique combination produces greater antihypertensive effect with lower doses

Eutron is the combination in a single tablet of 25 mg. Eutonyl (pargyline hydrochloride) and 5 mg. Enduron (methyclothiazide). This combination produces greater therapeutic effect than that of either component used alone. Side effects may be milder, too, as dosages are generally lower. The effective dosage is usually one tablet, once daily. Tablets are scored for greater dosage flexibility.

100 No 6878
Filmtab®
EUTONYL™
25 mg. PARGYLINE HYDRO-CHLORIDE
Caution, Federal (U.S.A.) law prohibits dispensing without prescription
100 No. 6812
Tablets (Grooved)
ENDURON™
METHYCLO-THIAZIDE
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Each Eutron tablet contains two proven antihypertensives in the ratio shown to be most effective in most patients.

TM—TRADEMARK

New **EUTRON** extends your range of treatment in moderate to severe hypertension

A single product you can use even in the presence of congestive heart failure or edema

Eight out of 10 patients respond

In clinical trials, Eutron produced normotension or a significant reduction in blood pressure in eight out of 10 patients studied. The rationale for the product is this: Eutonyl used alone is a potent antihypertensive. Its antihypertensive action is markedly enhanced by Enduron, a potassium-sparing thiazide.[1,2,3] The combination (Eutron) thus produces greater antihypertensive effect with lower dosages of the Eutonyl component, and milder side effects may be seen.

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1. Torosdag, S., Schvartz, N., Fletcher, L., Fertig, H., Schwartz, M. S., Quan, R. F. B., and Bryant, J. M., Pargyline Hydrochloride as an Antihypertensive Agent With and Without A Thiazide, Am. J. Cardiol., 12:822, Dec., 1963.
2. Pollack, P. J., Pargyline Hydrochloride and Methyclothiazide Combined In The Treatment of Hypertension, Cur. Thera. Res., 7:10, Jan., 1965.
3. Bryant, J. M. et al., Antihypertensive Properties of Pargyline Hydrochloride, New Non-Hydrazine Monoamine Oxidase Inhibitor Compared with Sulphonamide Diuretics, J.A.M.A., 178; 406, Oct., 1961.

BP reductions in the recumbent and sitting positions often are nearly as great as in the standing. In clinical trials, the average *recumbent* BP reduction was 36/18 mm. Hg.

The average *standing* reduction in clinical trials was 45/22 mm. Hg. Thus the difference between the standing and recumbent readings was only 9/4 mm. Hg.

Significantly lowers blood pressure in all body positions; less likelihood of orthostatic hypotension

In clinical trials, the average reduction in standing blood pressure was 45/22 mm. Hg.; in the sitting position it was 48/20 mm. Hg.; and in the recumbent position, 36/18 mm. Hg.

Because Eutron effectively reduces blood pressure in all body positions, there is reduced likelihood of orthostatic symptoms or hypotension.

This was reflected in the relatively mild character of side effects seen in clinical trials (see below).

Smooth and gradual onset

Onset of antihypertensive action is usually quite smooth. Initial reduction of systolic and diastolic readings is usually seen within a week – maximum reduction in seven to ten days.

Less troublesome side effects may be seen; frequent improvement in "sense of well-being"

Fewer than 1% of patients studied discontinued Eutron therapy because of side effects. This is due in part to the relatively low dosage needed with the combination. Usual recommended dose is one tablet daily–that is, 25 mg. Eutonyl with 5 mg. Enduron. *This is about half the usual therapeutic dose of Eutonyl given alone.* As a consequence side effects may be milder. And, as with Eutonyl given alone, the patient may well note an increased sense of well being. This is in distinct contrast to most other antihypertensive therapy.

ABBOTT

Prescribing information for **EUTRON**

INDICATIONS: Eutron (pargyline hydrochloride and methyclothiazide) is indicated in the treatment of patients with moderate to severe hypertension, especially those with severe diastolic hypertension. It is not recommended for use in patients with mild or labile hypertension amenable to therapy with sedatives and/or thiazide diuretics alone.

CONTRAINDICATIONS: Eutron is contraindicated in patients with pheochromocytoma, advanced renal disease, paranoid schizophrenia and hyperthyroidism. Until further experience is gained it cannot be recommended for use in patients with malignant hypertension, children (under 12 years of age), or pregnant patients.

The concomitant use of the following is contraindicated: other monoamine oxidase inhibitors; parenteral forms of reserpine or guanethidine; sympathomimetic drugs; foods high in tyramine such as cheese; imipramine and amitriptyline, or similar antidepressants; methyldopa. A drug-free interval of two weeks should separate therapy and use of these agents.

WARNINGS: Pargyline hydrochloride is a monoamine oxidase inhibitor. Patients should be warned against eating cheese, and using alcohol, proprietary drugs or other medication without the knowledge of the physician. When it is necessary to administer alcohol, narcotics (notably meperidine), antihistamines, anesthetics, barbiturates and other hypnotics, sedatives, tranquilizers, or caffeine, these agents can be used cautiously at a dosage of ¼ to ⅕ the usual amount. Avoid parenteral administration where possible. Withdraw pargyline two weeks before elective surgery.

Patients should be warned about the possibility of postural orthostatic hypotension. Those with angina or other evidence of coronary disease should not increase physical activity. Pargyline may lower blood sugar. Potassium depletion is unlikely at the recommended dosage, but if it occurs, adjust dosage or withdraw or provide added natural food sources of potassium; potassium tablets should be avoided wherever possible, as bleeding or obstructive ulceration of the small bowel has been associated with their use; potassium levels should be especially watched if the patient is on digitalis or steroids, or if hepatic coma is impending.

PRECAUTIONS: When determining the antihypertensive effect of Eutron, blood pressure should be measured while the patient is *standing*. Use with caution in hyperactive or hyperexcitable persons. Such persons may show increased restlessness and agitation. Withdraw drug during acute febrile illness. Watch patients with impaired renal function for increasing drug effects or elevation of BUN and other evidence of progressive renal failure; withdraw drug if such alterations persist and progress. Pargyline has not been shown to cause damage to body organs or systems. As with all new drugs, complete blood counts, urinalyses, and liver function tests should be performed periodically. The drug should be used with caution in patients with liver dysfunction. With prolonged therapy, examine patients for change in color perception, visual fields, and fundi.

Elevated blood urea nitrogen, serum uric acid or blood sugar are possibilities attributable to the methyclothiazide in Eutron. Methyclothiazide may also reduce arterial response to pressor amines. Blood dyscrasias, including thrombocytopemia with purpura, agranulocytosis and aplastic anemia, have been seen with thiazide drugs.

SIDE EFFECTS: The use of pargyline may be associated with orthostatic hypotension. Mild constipation, slight edema, dry mouth, sweating, increased appetite, arthralgia, nausea and vomiting, headache, insomnia, difficulty in micturition, nightmares, impotence, delayed ejaculation, rash, and purpura have been encountered with pargyline. Hyperexcitability, increased neuromuscular activity (muscle twitching) and other extra-pyramidal symptoms have been reported. Drug fever is extremely rare. Congestive heart failure has been reported in a few patients with reduced cardiac reserve. Nocturia has been observed with the combination. If side effects persist, despite symptomatic therapy or reduction of the dose, discontinue the drug.

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512214

Butazolidin® alka

phenylbutazone	100 mg.
dried aluminum hydroxide gel	100 mg.
magnesium trisilicate	150 mg.
homatropine methylbromide	1.25 mg.

Usually works within 3 to 4 days in osteoarthritis

The trial period need not exceed 1 week. In contrast, the recommended trial period for indomethacin is *at least 1 month.*

That's why it's logical to start therapy with Butazolidin alka—you'll know quickly whether or not it works. And usually, it will.

A large number of investigators have reported major improvement in about 75% of cases. Some patients have gone into remission. Relief of stiffness and pain may be followed quickly by improved function and resolution of other signs of inflammation. And Butazolidin alka is well tolerated, especially since it contains antacids and an antispasmodic to minimize gastric upset.

Contraindications
Edema, danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile, or when other potent drugs are given concurrently. Large doses are contraindicated in patients with glaucoma.

Precautions
Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should be closely supervised and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools. Make regular blood counts. Use greater care in the elderly.

Warning
If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy.

Adverse Reactions
The most common are nausea, edema and drug rash. Hemodilution may cause moderate fall in red cell count. The drug may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, generalized allergic reaction, stomatitis, salivary gland enlargement, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently.

Dosage
The initial daily dosage in adults is 300-600 mg. daily in divided doses. In most instances, 400 mg. daily is sufficient. When improvement occurs, dosage should be decreased to the minimum effective level: this should not exceed 400 mg. daily, and is often achieved with only 100-200 mg. daily.

Also available: Butazolidin®,
brand of phenylbutazone
Tablets of 100 mg.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York

BU-3804 P

Geigy

Low host resistance?

Consider the "extra" antibacterial activity of Ilosone®

Occasionally, therapeutic failure is due to the patient's inability to mobilize his defenses sufficiently to overcome infection. Typical of this is the debilitated patient, the premature infant, or the diabetic. It is in these patients that the high levels of antimicrobial activity of Ilosone are especially useful. Ilosone has demonstrated antibacterial levels two to four times those of erythromycin base or stearate. Furthermore, it attains them earlier and maintains them longer. Even the presence of food does not appear to affect the activity of Ilosone.

Contraindications: Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with preexisting liver disease or dysfunction.

Side-Effects: Even though Ilosone is the most active oral form of erythromycin, the incidence of side-effects is low. Infrequent cases of drug idiosyncrasy, manifested by a form of intrahepatic cholestatic jaundice, have been reported. There have been no known fatal or definite residual effects. Gastro-intestinal disturbances not associated with hepatic effects are observed in a small proportion of patients as a result of a local stimulating action of Ilosone on the alimentary tract. Although allergic manifestations are uncommon with the use of erythromycin, there have been occasional reports of urticaria, skin eruptions, and, on rare occasions, anaphylaxis.

Dosage: *Children under 25 pounds*—5 mg. per pound of body weight every six hours. *Children 25 to 50 pounds*—125 mg. every six hours. *Adults and children over 50 pounds*—250 mg. every six hours. For severe infections, these dosages may be doubled.

Available in Pulvules®, suspension, drops, and chewable tablets. Ilosone Chewable tablets should be chewed or crushed and swallowed with water.

Ilosone®

Erythromycin Estolate

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana. 601280

Lilly

Luther L. Terry, M.D.

Vice-President for Medical Affairs

University of Pennsylvania

DOCTOR TERRY COMMENTS ON . . .

- Continuing Education of the Physician
- Medical Schools and Government
- Heart Disease, Cancer, and Stroke Program
- Pennsylvania's 'One Medicine' Concept

THIS NEW PORTION of your career is set in the commonwealth of Pennsylvania. Will you describe, for your fellow Pennsylvania physicians, the nature of your new job, and your plans to fulfill your responsibilities?

"The new position which I am occupying is that of Vice-President for Medical Affairs at the University of Pennsylvania. This position is well known to most of our Pennsylvania physicians as having been occupied in recent years by Dr. I. S. Ravdin.

"Within the responsibility are involved five of the schools of the University of Pennsylvania; namely, the School of Medicine, the School of Dental Medicine, the School of Veterinary Medicine, the School of Nursing and the School of Allied Medical Professions. It is my responsibility, in this portion as vice-president, to aid and assist the deans of these schools in carrying out the administrative responsibilities of the schools and particularly an attempt to get a high degree of coordination and cooperation among the various schools in the division of medical affairs and among other appropriate areas in the university.

"My plans at the present time involve obtaining far more detailed information with regard to these operations, and also with regard to our association in the operation of the two hospitals operated by the University of Pennsylvania and of the several hospitals which are affiliated with the university.

"It is a rather complicated system, but nevertheless it is a fine system, with highly capable people participating in its activities. It is for this reason that I look forward to working in this area. I feel that the University of Pennsylvania in its division of medical affairs will be able to make some very significant contributions in the coming years."

Are there many aspects of your work which will touch on the functions of the Pennsylvania Medical Society?

"Obviously, the activities of a large university like the University of Pennsylvania and our specialized health schools will have a great deal of relationship with the Pennsylvania Medical Society. As a matter of fact, over the many years there has been a close working relationship between the university and its health schools, the Pennsylvania Medical Society, and other medical organizations within the state. I expect that these relationships will improve and become even more intimate.

"I personally feel that the time has come when the medical schools must take a more responsible position in relation to the preparation of physicians for the practice of medicine, both inside the state of Pennsylvania and elsewhere, and for the training of these physicians, to give them the basic background they need to carry out these responsibilities.

"In addition, I am hopeful that the university will also occupy a much more permanent and contributing role to continuing education of the graduate physicians in this state over the coming years.

"There are many other areas in which we will be involved with the Pennsylvania Medical Society, but these are the most prominent ones."

Working With Government

Since so much of your career has been spent in public service, do you anticipate making a contribution to the cooperation between the university and the many government agencies involved in the health sciences?

"Naturally, I feel that my experience in the federal government and in particular my twenty-three years in the United States Public Health Service will assist me and the university in dealing with many governmental organizations. I think this is true not only for our federal government agencies but I feel that my experience in working with the state and territorial health offices and with local health offices throughout the country will also assist us here in understanding and appreciating the attitudes of, and working more smoothly with, the various government agencies at all levels.

'There is going to be an increasing necessity for understanding and cooperation between the government and our medical schools . . .'

"I think that any medical school, with its broad responsibilities, must appreciate the fact that it will of necessity have dealings with all levels of government operation, particularly in the light of many of the new developments and much of the new legislation, both at the federal and state level. There is going to be an increasing necessity for understanding and cooperation between the government and our medical schools, whether the latter be public or private."

Will you continue to serve the government, and if so, in what capacity?

"I anticipate that I will continue to serve the government in a consulting capacity from time to time.

"I have already been questioned about my availability for consulting functions to certain of the government agencies, and will expect to keep well informed and in close relation to the developments in our government.

"In addition, I expect to serve our government of the commonwealth of Pennsylvania in any manner I possibly can. I have already been invited by the Governor to serve on some of the important councils and commissions of the state government and expect to make the greatest contribution in this area that I possibly can."

Government Grants

Do you expect to be involved in the changing distribution of government grants for research and development which has been indicated by President Johnson's recent statements?

"Naturally, I feel that I will be involved in these changing developments in relation to the funds which our government spends as well as to those which other segments of our society spend in relation to health.

"I hope that I can serve in an advisory capacity and I think that naturally we will expect that the role of the university and its professional health schools will be such that as a part of the University of Pennsylvania we will be directly contributing to and participating in many of these developments."

Can you say anything about the present or future relation of the University of Pennsylvania to the government plans for scientific advancement, specifically as related to the health sciences?

"It is a bit difficult to be specific at the present moment, particularly since I have been associated with the University of Pennsylvania for such a short period of time.

"On the other hand, I think that it is obvious that some of the new legislation such as that for medicare, and for heart disease, cancer, and stroke research, as well as the changes in our indigent medical care system, are going to require participation on the part of the medical schools and of the entire medical and health community.

"I am not sure just exactly how we will develop in this direction, but I might say that we are working with the other medical schools in the Philadelphia area at this time in terms of developing a regional program for heart disease, cancer, and stroke for this section of the state of Pennsylvania."

Will you have any opportunity to see patients, and to do any research?

"It is doubtful that I will have any opportunity to do any research directly, but I do expect to have faculty appointments in the medical school and have already started some teaching in the university in terms of lecturing. I expect to continue this, and to be a part of the teaching program of the University of Pennsylvania."

Is it too early to ask your view of the cooperative results which can be expected by the continuing functioning of the medical, dental, and veterinary medicine schools under the 'One Medicine' concept?

"No, it is not too early to ask my view in this because I have long felt, independent of the attitude here at Pennsylvania, that these areas of medicine should be "One Medicine."

"I strongly agree with the concepts which have been pronounced by Dr. Ravdin and the others at the University of Pennsylvania and I expect to further these views in terms of fostering and promoting the cooperative relationship between these various schools in relation to the health of our people.

"I am unable to tell you the exact details at this time because I have not had an opportunity to reach that point."

Graduate Medical Education

Where do you think the university should stand on graduate medical education?

"I believe that the University of Pennsylvania and every university with a medical school should have a definite responsibility in the field of graduate medical education.

"Of course, our normal activities in relation to the programs of intern and residency training over long periods of time have been examples of graduate medical education.

"I believe we also have a responsible role in relation to continuing education of the practicing physician. I am going to work with the deans and the leaders in our medical faculty here in terms of discerning just how we can contribute most in this direction. Many studies are being carried out throughout the country at the present time in relation to methodology of graduate education. I am not certain which of the particular types of approaches we will take, or, on the other hand, whether we will take several such approaches; but the University of Pennsylvania is interested in graduate medical education, and I believe will be increasingly involved in this area over the coming years."

A Pasteur Memento for a New Medical Museum

A LABORATORY FLASK containing a specimen of veal bouillon used by Louis Pasteur a century ago to disprove the theory of spontaneous generation was formally presented to the University of Pennsylvania October 22.

The flask, still sealed, was given by the descendants of the late Ernest LaPlace, M.D., who worked closely with Pasteur in his Paris institute in 1885-86. Pasteur gave it to Dr. LaPlace, a Philadelphia surgeon, as a memento, and the flask has remained in the LaPlace family since then.

DAVID L. DRABKIN, M.D., professor of biochemistry in the university School of Medicine and curator of the school's newly-established museum, said the flask is one of only three unopened veal bouillon specimens that remained from some sixty flasks Pasteur prepared for his experiment in the autumn of 1858.

FLASKS THAT had been opened near stables acquired many germs, the bouillon quickly becoming clouded. But of twenty flasks opened in the high, pure air of the Alps, only one was contaminated. Pasteur's experiment thus became the knockout blow to the "spontaneous generation" school.

Dr. LaPlace lived in Pasteur's home for several months during his year's study at the Institute. This was immediately after Pasteur's first use of the rabies vaccine, and Dr. LaPlace often administered the vaccine under Pasteur's supervision.

RETURNING to Philadelphia, Dr. LaPlace became a successful, highly respected surgeon. His son, the late Louis LaPlace, M.D. (named after Louis Pasteur), was a 1928 graduate of the University of Pennsylvania School of Medicine; his children, residents of St. Davids, presented the flask to the university.

Child Mortality from Asthma

A REVIEW OF DEATHS from asthma at the Childrens Hospital of Los Angeles, 1937-63, revealed that twenty of the twenty-four asthmatic deaths occurred since 1952. During the same period, the overall hospital death rate declined.

Patients who succumbed to asthma ranged in age, at death, from five months to fourteen years of age. Two children died in infancy, two during initial asthmatic episodes (but with pathologic evidence of preexisting disease), and six, suddenly and unexpectedly. The remaining sixteen deaths were more insidious.

Contributing Factors

Factors contributing to death included infection, pancreatitis, aminophylline intoxication, possible cardiac failure, over-sedation, hypoadrenalism, and pulmonary hemorrhage. The most common pathologic finding was pneumonitis, present in twelve patients; eleven evidenced bronchopneumonia, one, viral pneumonitis characterized by monocytic infiltration of bronchi and peribronchial tissues; (one of these twelve had bronchopneumonia and viral pneumonitis). There was no pathologic evidence of pulmonary infection in the other twelve patients.

Acute pancreatitis was found at autopsy in two patients, ten and twelve years old, who had long histories of asthma. Heavy sedation and inadequate hydration may also have been significant in some deaths. In one case, aminophylline intoxication was a major factor. Pathological examination of the lungs of five children with severe and chronic asthma revealed surprisingly minimal changes and no evidence of destructive emphysema.

In the six sudden, unexpected deaths, all but one of the patients had been on steroid therapy. In two cases, asthmatic death appeared to be pathologically uncomplicated.

Mortality Trends

Statistical information on death from asthma was incomplete until rather recently, but a review of the literature reveals that such deaths—among all age groups—were virtually unknown prior to 1930. To determine the significance of mortality trends in the present study, comparative asthma mortality data were examined for: the nation; California; Los Angeles County (excluding the cities of Los Angeles, Long Beach, and Pasadena); the city of Los Angeles; and the Los Angeles County General Hospital.

For all age groups, asthma mortality rates since 1949 have been higher in the city of Los Angeles but not in the county or throughout the state than they were prior to that year. In 1956-7, asthma mortality in children under fourteen years of age in the city and in the state rose markedly. In 1957 at the Childrens Hospital, more asthmatic deaths (five) occurred than in any other year studied; an Asian flu epidemic that year may partially account for the increase.

Although there was little correlation between air pollution and the peak years of Childrens Hospital asthma deaths, the greatest number of such deaths in *all* age groups in the city occurred in 1956, the year of the greatest number of smog warnings, of diminished visibility due to smog, and of heaviest incidence of eye irritation.

The eighteen patients who did not die suddenly and unexpectedly experienced progressive dyspnea, cyanosis, coma, and respiratory acidosis. These cases involved pneumonitis, aminophylline intoxication, over-sedation, pancreatitis, and hypoadrenalism.

Therapies Evaluated

Although in this study, the incidence of infection was high, routine use of antibiotics in asthmatic children is not justified; their use is indicated when there is evidence of infection elsewhere, fever, and leukocytosis, or when there are positive chest x-ray findings. Low-grade fever is not infrequent in allergic persons with no infection.

Particularly with asthmatic children under three years of age, those in attendance should be thoroughly familiar with each patient's prior chemotherapy before administering aminophylline, and should also know of its possible toxic symptoms and side effects. Also important is judicious use of steroids.

Heart and Lung Factors

The heart's role in asthma deaths is controversial. Only two patients in the study evidenced cardiac hypertrophy; both of them died suddenly, without evidence of other complications.

Although the classic findings of emphysema are not present in asthma, there is evidence that severe chronic asthma may cause elastic tissue damage. Unquestionably, some asthmatic children develop chronic debilitating lung disease, but probably many more have benign, reversible changes.

Warren Richards, M.D., and James R. Patrick, M.D. *American Journal of Diseases of Children*, July, 1965.

A New Sequential Oral Contraceptive Evaluated

Leopold S. Loewenberg, M.D.
Philadelphia, Pennsylvania

EACH TABLET in the new formulation we are evaluating—which the manufacturer designates ORF-1557-G—contains mestranol 80 mg.; each of the last six also contains norethindrone 2 mg. Dispensed by means of a twenty-tablet Dialpak, the tablets are taken sequentially, first the fourteen white mestranol ones, then the six blue combination pills. They are prescribed to be taken one daily, beginning on the fifth day of the menstrual cycle and continuing daily through the twenty-fourth day.

All patients in the study were from the postnatal clinic of the Jefferson Medical College department of obstetrics and gynecology. Upon routine postnatal examination, patients with major puerperal complications requiring further gynecologic treatment were not included in the study. Participants, instructed in the use of the pills and in the method of taking them, were advised to begin dosage the night the pills were dispensed, if no menses had occurred since delivery. On return visits, each patient's weight, symptoms, menstrual history, and side effect (if any), were noted and recorded. Repeat pelvic examinations were performed when deemed necessary—usually in cases of breakthrough bleeding, vaginal discharge, or menorrhagia.

Papanicolaou smears were collected from a small group of patients prior to initiating medication, and from any patients who, at the subsequent examination, exhibited questionable lesions. There were no positive Papanicolaou smears in this series.

The clinical study of ORF-1557-G, begun in October, 1963, is still in progress. Three hundred thirty-five patients were entered in the study and supplied with the tablets; eighty of these patients did not return after the initial visit. An additional fifty-two who made only one visit are not included.

The remaining 203 patients represent 1,503 completed menstrual cycles of use—an average of 7.4 cycles completed per patient (Table 1). Ages ranged from sixteen to forty-four years, with an average age of twenty-four.

These 203 patients had had a total of 701 pregnancies, including 631 live births and 80 stillbirths or abortions; the average parity per patient was 3.1.

Cycles

The lengths of the cycles on therapy vary from 12 to 67 days, but in most patients the onset of menses occurred in 26- to 28-day cycles (Table 2). The cycle average was 27.1 days. Comparison with pretherapy cycle history reveals that 30.5 percent of patients noted a longer cycle, 41.5 percent a shorter one, and 28 percent an unchanged cycle. The average net change per cycle was only 0.3 of a day.

Table 3 lists the durations of menstrual flow. Comparing the pretreatment history of 4.8 days with a treatment average of 4.6 days, no appreciable change appears in the average duration of flow. The amounts of flow as subjectively stated by the patients indicated that before treatment, 2.5 percent of the periods were light, 93.1 percent were moderate, and 3.5 percent were heavy; (0.9 percent were not stated). In the cycles studied during treatment, the patients reported 5.6 percent light, 83.1 percent moderate, and 7.8 percent heavy, with 4.5 percent not stated.

These facts indicate that the sequential oral contraceptive ORF-1557-G apparently does not significantly alter menstrual regularity, duration, or amount of flow. Absence of withdrawal bleeding was noted in only five cycles, three patients missing one menses, and one missing two. In

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• **Dr. Loewenberg is an instructor in the department of obstetrics and gynecology, Jefferson Medical College.**

this latter case, the amenorrhea was due to an unplanned pregnancy, the result of improper use of the tablets.

TABLE 1

Cycles of Use

No. Cycles Completed	Number of Patients	Percentage of Patients	Total Cycles Completed
1	11	5.4%	11
2	28	13.8%	56
3	25	12.3%	75
4	12	5.9%	48
5	12	5.9%	60
6	13	6.4%	78
7	8	3.9%	56
8	6	3.0%	48
9	7	3.4%	63
10	5	2.5%	50
11	13	6.4%	143
12	31	15.3%	372
13	16	7.9%	208
14	9	4.4%	126
15	4	2.0%	60
16	2	1.0%	32
17	1	0.5%	17
TOTAL	203	100.0%	1,503

TABLE 2

Cycle Day Distribution During Therapy

No. Days in Cycle	No. Patient Cycles	Percentage of Subtotal
Under 23	28	2.1%
23–25	160	12.6%
26	216	16.9%
27	393	30.9%
28	238	18.7%
29	96	7.6%
30	61	4.8%
31–34	66	5.2%
35 and over	18	1.6%
Subtotal	1,276	100%
Not Measured	227	
TOTAL	1,503	

Side Effects Minor

Side effects were minimal, and of little consequence. Spotting and breakthrough bleeding were highest in the first three cycles (Table 4), only 21 of the 203 patients reporting spotting or breakthrough bleeding. These occurred in only 31 of 1,503 cycles, for an average cycle incidence of 2.1 percent.

Gastrointestinal disturbances were even less troublesome, occurring in only six cycles in four patients, for a cycle incidence of 0.4 percent. The nausea reported was without pattern, i.e., none in cycles one and two, one patient reporting in cycle three, and one each in cycles four, five, and seven. These low, sporadic occurrences can hardly be considered true side effects. One patient reported diarrhea in the first cycle.

Changes in total body weight are indicated in Table 5. Groups of patients nearly equal in number either gained weight, lost, or noted no change.

Eight patients mentioned increased dysmenorrhea, all of them indicating at least moderate to severe dysmenorrhea prior to therapy. Two patients discontinued therapy because of the increased dysmenorrhea.

Eighteen patients dropped out after having at least one follow-up visit, and eight of them—because they had moved or could not be located—were lost to further follow-up. Two patients were discontinued at the request of other physicians, for medical and/or metabolic studies. One patient who had abnormally short (14- and 16-day) cycles, due to using the tablets improperly, discontinued therapy after three cycles. Because of a language barrier, two patients were unable to comprehend the routine; although one of them continued for five cycles, the other for six, these two patients comprise the bulk of "short" cycles, i.e., less than 23 days. One patient dropped out for unknown reasons.

Other Effects

Not severe enough to cause discontinuance were patient complaints regarding abnormal vaginal discharge (five patients, in one cycle each—cycles one, two, four, five, and thirteen). One patient reported headache in cycles two, four, and five, two other patients in cycle two. One patient reported very heavy menses with clotting. Repeated hemoglobin determinations at monthly intervals failed to reveal any changes.

Results

The contraceptive was 100 percent effective in patients using it correctly. One patient previously mentioned, mistakenly thought the breakthrough bleeding on the fourteenth day of the cycle was a menstrual period, discontinued the pills for five days, then resumed a fresh cycle. She stained only slightly on withdrawal of the next cycle of twenty pills, and restarted a third cycle five days after this staining. When withdrawal bleeding did not occur after the third cycle, she was examined and found to be approximately ten weeks pregnant. We assume that conception occurred immediately after the breakthrough bleeding, on the fourteenth day of the first cycle. The patient subsequently disappeared from the roster of the Jefferson Hospital Clinic, and social service personnel's attempts to follow the outcome of the pregnancy have failed. None of the patients dropped from the study after initial registration has been found to be registered at the Jefferson Medical College Maternity Clinic.

TABLE 3

Duration of Menstrual Flow

Days of Flow	No. Patient Cycles		Percentage of Subtotal	
	Before	*During*	*Before*	*During*
1	0	3	0%	0.2%
2	0	10	0%	0.7%
3	201	194	13.9%	13.3%
4	333	356	23.0%	24.4%
5	616	789	42.6%	54.1%
6	129	85	8.9%	5.8%
7	146	18	10.1%	1.2%
8	10	2	0.7%	0.1%
9	12	3	0.8%	0.2%
Subtotal	1,447	1,460	100.0%	100.0%
Not Measurable	56	43		
TOTAL	1,503	1,503		

TABLE 4

Spotting, Breakthrough Bleeding

Cycle Number	No. Patients in Cycle	Bleeding Incidence	Percentage of Incidence
1	203	11	5.4%
2	192	7	3.6%
3	164	2	1.2%
4	139	1	0.7%
5	127	2	1.6%
6	115	2	1.7%
7	102	1	1.0%
8	94	2	2.1%
9	88	1	1.1%
10	81	1	1.2%
11	76	0	0%
12	63	0	0%
13	32	1	3.1%
14	16	0	0%
15	7	0	0%
16	3	0	0%
17	1	0	0%

TABLE 5

Weight Comparison, Pre-Therapy, and Weight-Change Classification

	Number of Patients				
	No Change	Gain	Loss	Total	% of Subtotal
No Weight Change	52	..	..	52	30.1%
1–5 lb. Change	..	33	31	64	37.0%
6–10 lb. Change	..	18	22	40	23.1%
11–15 lb. Change	..	2	11	13	7.5%
16 lb. Change or More	..	2	2	4	2.3%
Subtotal	52	55	66	173	100.0%
Patients Not Comparable				30	
TOTAL in Study				203	

Summary and Conclusions

Over a period of 17 months, representing 1,503 menstrual cycles, 203 patients were studied as they used a new sequential oral contraceptive, ORF-1557-G. No pregnancies were reported in patients who took the tablets as directed. Side effects were minimal and the incidence of breakthrough bleeding, gastrointestinal symptoms, weight change, vaginal discharge, and other somatic complaints was very low.

● The Ortho Research Foundation supplied the material for the study, and provided a grant which partially subsidized research expenses.

● Dialpak is a trademark of Ortho Pharmaceutical Corporation.

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Amputee Clinics in Pennsylvania

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FOR THE FOURTH consecutive year, Pennsylvania leads all fifty states in the total number of persons rehabilitated—12,226—of whom 19.5 percent were provided with prosthetic appliances and 17.6 percent received prescribed training in the proper use of these appliances.

A network of eighteen amputee clinics was set up to provide an effective means for the Bureau of Vocational Rehabilitation to evaluate amputee patients throughout the state, and to fit them with appropriate prosthetic appliances. Pennsylvania was the leader in thus establishing a statewide system of organized clinics for nonveteran amputees. Attesting to the value of the clinics is the adoption of similar programs by other states' vocational rehabilitation bureaus. The plan will do much to erase the disparity existing in many areas of the nation between the standards for prosthetic services available to veterans and those of services available to nonveteran amputees.

The staff of each amputee clinic for referral of Bureau amputee patients needing prosthetic services consists of a physician (a physiatrist or an orthopedic surgeon), a prosthetist, a therapist, a vocational counselor, and any other personnel the clinic staff deems necessary. To participate in activities of the clinic team, the physician, the prosthetist, the therapist, and the rehabilitation counselor must have successfully completed prosthetics courses at New York University, The University of California in Los Angeles, or Northwestern University.

With the aid of the American Orthotics and Prosthetics Association, the Bureau of Vocational Rehabilitation has obtained a list of certified prosthetics facilities, plus a list of prosthetists together with the record of courses they have taken at the prosthetics schools.

Standards

As a result of progress made, the Bureau of Vocational Rehabilitation has now implemented the following policies and procedures with respect to its amputee beneficiaries:

1. All amputee beneficiaries will be processed at a Bureau-approved prosthetics clinic, the personnel of which must have attended formal prosthetics courses such as are given by the prosthetics schools. Following evaluation of the amputee patient by the clinic team, the clinic chief (the physician), will dictate the findings, the recommendations, the prosthetics prescription, and the rehabilitation plan—including therapy and prosthetics training. The clinic team is responsible for the final evaluation of the prosthesis, and for the training of the amputee in its use.

2. The Bureau will contract only with facilities certified by the American Board for Certification in Orthotics and Prosthetics.

3. A vocational counselor will be assigned to each prosthetics clinic, and will attend each clinic session.

4. The clinic chief will be responsible for recommending the facility to fabricate the prosthesis. In this regard, consideration will be given to:

   a. Rotation. Normally, cases will be rotated among the firms which have a prosthetist on the clinic team.

   b. Referral sources.

   c. Locality in which the client resides.

   d. Cases requiring special fitting techniques.

   e. Replacement prosthesis will normally be referred to the facility which fabricated the amputee's present device, provided the firm is a participant in the clinic and is competent to manufacture the prosthesis prescribed by the clinic team.

• **Dr. Sivick is State Medical Administrator in charge of the Medical Section, Pennsylvania Bureau of Vocational Rehabilitation. He also engages in private practice.**

The prosthetics team, which is capable of coping with the multidimensional aspects of amputee management, is the most effective means of serving amputees. The "team approach" has resulted in a high degree of accuracy in fitting, and in good service.

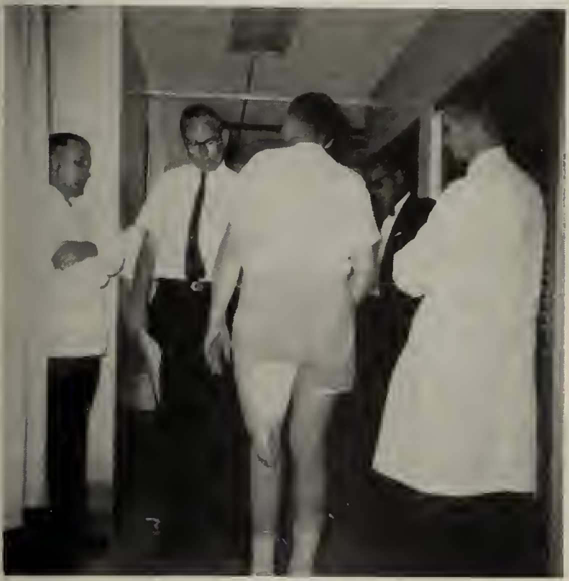

Fig. 1. Rehabilitation team supervises patient newly fitted with prosthesis.

For a more comprehensive evaluation of the benefits derived from the amputee clinic approach, refer to the amputee clinic report, *Follow-Up Study of Amputees Served By A Prosthetic Team,* by Allen S. Russek, M.D., under the chairmanship of Howard A. Rusk, M.D., of the department of physical medicine and rehabilitation, New York University Medical Center, which was sponsored by the Vocational Rehabilitation Administration.

Responsibility

The amputee clinics are completely the responsibility of the particular hospitals or rehabilitation centers in which they operate. The Bureau's only contact with these clinics is through the rehabilitation counselor, who acts in a liaison capacity for the Bureau, attending each amputee session and procuring services for amputee patients of the Bureau.

Since these clinics are, in essence, private ones, the private amputee patients of all physicians may utilize them without any contact with, or interest by, the Bureau of Vocational Rehabilitation. Physicians are encouraged to use these amputee clinics, either on a private basis, or through services afforded their patients who are referred to the Bureau, providing that the latter are eligible from a statutory standpoint.

Rehabilitation enables the individual to become gainfully employed, to pay taxes on his earnings, and to look after his needs in a dignified manner without depending on his community to care for him. The employed rehabilitant pays much more in federal taxes, after rehabilitation, than is expended on his rehabilitation.

The amputee program in Pennsylvania will continue to be directed toward the goal of narrowing the gap between what is *known,* and what is *practiced,* in the field of prosthetics. This can be accomplished only through the continuing prosthetics education of the entire amputee clinic team.

How Philadelphia General Hospital Provides Home Care for Needy Aged

A HOME CARE program has been established by Philadelphia General Hospital to provide certain hospital and supportive services to selected indigent patients over sixty-five years of age. Participants in the program are persons who have been treated at the hospital and discharged, but who still require certain follow-up services and are physically unable to make regular visits to the hospital.

Services provided under the home care program include visits by physicians, nurses, occupational therapists, physical therapists, social workers, and homemakers. Within certain limits, the hospital lends necessary equipment to those on home care and furnishes medications and medical supplies. As feasible, all diagnostic and therapeutic services of the hospital will be made available to these patients.

PHYSICIANS AT Philadelphia General Hospital refer to the home care department, inpatients who they believe would best be aided by this service. Those accepted are oriented before their discharge from the hospital after the home care team has determined the type and duration of services to be provided.

The basic objectives of the Philadelphia General Hospital home care program are:

1. To furnish comprehensive patient care in the homes of those whose medical needs can best be met in this setting;

2. To shorten the hospital stay and to return patients selected for home care to their families, familiar surroundings, and useful functional activity as soon as possible; and

3. To extend the health services of the community by providing a type of hospital-based patient care that will bridge the gap between inpatient and outpatient services.

—*Chronic Illness Newsletter* of the American Medical Association Council on Medical Service, October, 1965.

The Unhappy Child and His Family

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IN DEALING WITH the unhappy child, it is necessary first of all to understand the family as a dynamic, functioning unit of society, each member presenting various needs which must be satisfied. A kind of equilibrium or pattern of interaction develops between the members of the family; as change or accommodation is needed, spontaneous adjustments in the equilibrium are continually made by family members. When one member's needs are not met, he cannot react adequately, and will evidence symptoms.

Thus from day to day the members of a family are under constant pressure to "adjust," and to maintain optimum equilibrium; but these things are done unconsciously.

Youngsters communicate their needs largely by the way they behave, thus behavior becomes a symptom which can convey a message just as surely as does an elevated temperature. When a child's behavior is aberrant, parents and physicians together must try to understand what needs the child is communicating.

Parents Key Members

Parents are the most important members of the family unit, because by rules and/or by example, they establish a standard of organization and interpret, to the children, the demands of society. Since the parents also give love and security, the child learns to accept their values in order to "get along" with them. In return for this acceptance, the parents must give the child their approval and love. Children and parents usually want to please one another; when this basic interaction fails to occur, trouble ensues.

Psychologic conflicts or symptoms appear when needs or desires are not satisfied and an equilibrium cannot be maintained. In children, the symptoms may involve aberrant behavior—including school or physical problems, or retreat into a more passive, withdrawing behavior.

Parents, as the responsible members of the family, may react to symptoms in a number of ways. They may experience fear; they may "try everything" from bribery through punishment, leading only to greater dissatisfaction and more symptoms on the child's part. Parents and child may reach the point of utter frustration, with little communication existing between the "sides" except in the form of angry exchanges.

A child's problem, therefore, may be a direct result of the parents' unconscious failure to meet the youngster's needs, or of their unhealthy attitudes. If the latter can give place to more healthy ones, the child's behavior will become more healthy or more constructive. Equilibrium will have been reestablished.

Therapy Sought

Because they are dissatisfied with their child's behavior, the parents take the youngster to a psychiatrist. Therapeutically, the shorter the history of the problem at the time of the consultation, the better the prognosis. Unless *both* parents want to improve the situation, however, psychotherapy can accomplish little. Often, if the parents are really willing to work on the problem, it is easier and more practical to deal with them only; but in order to check the validity of parental observations, the therapist should see the child at least once.

I usually spend more time talking with the mother than I do with the father, simply because she spends more time with the child, knows more about the problem, and needs the greatest amount of help in handling the child. The father should be seen regularly, even though perhaps not so often as the mother.

Parents generally seek psychiatric aid as a last resort. They are "at their wits' end." They feel helpless and frustrated. They may be openly angry with the child for misbehaving or being sick, yet at the same time they may feel guilty for being angry. The first step in aiding parents is to help them recognize this anger and the subsequent guilt feelings, and to reassure them that these reactions are understandable, because children *can* be "provoking."

One goal with any patient or parent is to help him *do something*. In order to act thus constructively, however, parents must first understand how their attitudes determine the behavior of their children: the physician must educate the parents in how to think about the problem. He must also be aware that each parent is an individual, with standards and expectations different from those characteristic of other individuals.

One of the parents (not necessarily the father), is usually more aggressive than the other, dominating the decision-making. It is particularly important to reach this parent. It may be useful to talk with the father and mother together.

It is important, too, to help parents communicate with each other, so that a more solid basis is developed for dealing with the children. Obviously, if parents cannot agree with each other, children will also be in conflict. A common problem is that of the parent who is overly indulgent with a child because he feels the other parent is overly strict. This undermining of one parent by the other leads only to confusion in the mind of the child.

Parental attitudes always differ to some degree, but there must be a basic area of agreement. People's attitudes develop through the years—largely an unconscious process. A part of treatment, therefore, must be a discussion of attitudes and actions, so that parents can become aware that feelings of which they are not conscious can affect their children's behavior. Often, when parents can discuss this with the family doctor, he can help them develop more effective ways of dealing with their children. If, however, the parents' own needs (of which they are not conscious), make it impossible for them to perceive their own involvement in the child's problem, they must be referred to a psychiatrist for treatment. Effective treatment for such people is time-consuming and difficult.

Good Listener

The physician can be most helpful to the parents of a troubled child by *listening to them talk*. Often in discussing a problem with a neutral person, parents are able to work out a solution, whereas direct advice is seldom effective except in emergencies. The physician must realize that the discussions will require a number of interviews throughout which the parents will need reassurance, encouragement, and constant reminding that as the family atmosphere changes, the behavior of the children will be altered. But such atmosphere changes must occur consistently over a period of time, before changes in the child's behavior will be noticed.

Parents with a problem they cannot solve "on their own" are usually embarrassed to seek out a psychiatrist; they therefore require encouragement as they attempt to find a solution, and praise for the effort they make in seeking treatment.

Psychotherapy is an educative process in which the physician can point out the dynamic nature of the family unit and the effect which each member's actions have upon other members. Superficially, one may emphasize to parents the wisdom of refraining from responding to a child's hostile behavior with anger of their own. Since a child's "bad" behavior results from his frustrations and anger, punishment can never help—rather, it makes for further frustration. One gains nothing by punishing a child for feeling frustrated; but by consciously trying to react in a manner different from the child's, parents can effect a change in the child's actions. This course is by no means one of "giving in" to the child; it is simply the parents' use of their adult awareness and intelligence to change an unhappy situation. If, for example, a ten-year-old behaves like a five-year-old, his parents must be able to accept the fact without being angry; they can do this when they realize that such behavior is a symptom. At the same time, with praise for mature conduct, parents can encourage even more mature conduct.

Summary

As parents work on their "unhappy child" problem with their doctor, they need reassurance and support from him. He can view his role as one of educating the parents to understand how their behavior affects that of their children, and that only as they change the family atmosphere will the children's behavior be altered. If, due to their new insights, they consistently maintain this change, improvement must follow.

The Single-Unit Transfusion

A Continuing Problem

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IN 1958, William H. Crosby, M.D., published a now-famous editorial concerning the misuse of blood transfusions, which was republished three times; more than seven thousand reprints were distributed in response to requests.[1]

Dr. Crosby said that blood transfusions are improperly used because we are not sufficiently aware of the *valid* indications for transfusion. He made clear that surgery is not an indication for blood transfusion, nor are uterine bleeding, hypotension (per se), or a low hematocrit. A blood transfusion is not a tonic, it is not a placebo, it does not improve wound healing, nor is it a substitute for careful consideration of the patient and his problem. Dr. Crosby stated: "Setting aside the questions of exchange transfusion, there are two valid indications for the transfusion of blood: (1) to improve the stability of the circulatory system when the blood volume has been reduced in such a way as to imperil the patient; and (2) to improve the oxygen-carrying capacity of the blood, to prevent acute hypoxia or invalidism."

Status Unchanged

In spite of the fact that his editorial was widely read, Dr. Crosby was forced to state, in an editorial published in *Transfusion* in 1962,[2] "It goes without saying, the [1958] editorial has not improved the practice of transfusion. The interest it aroused was mostly among blood bankers, who need no editorials to tell them that blood transfusion is misused."

The Study

The present study substantiates that comment. It was undertaken to ascertain the number of single-unit transfusions administered in the Harrisburg Polyclinic Hospital in 1962, and the reasons for them. Records in the blood bank office yielded information on each patient receiving a single blood transfusion during his hospital stay; the hospital charts of all such patients were subsequently examined. During that year, 3,153 whole-blood transfusions, or fractions thereof, were infused. Of the 1,243 patients transfused (Table 1), 471—or 38 percent—received a single unit.

The charts of these 471 patients were the basis of the retrospective study pertaining to single-unit transfusions, with special note made concerning the patient's age and the disease occasioning the transfusion. In each case, the patient's general health, as described by the intern, was considered. Operating room and recovery room records were studied for indications as to hypotension and/or tachycardia, and for information on the degree of bleeding, etc. Progress notes recorded by the private physician or the house staff officer were read, with special consideration of signs or symptoms of hypovolemia or hypoxia. The pre- and post-transfusion hemoglobin and hematocrit values were studied. Surgeons' operative notes were read, specifically for references to blood loss and the need for blood replacement. Other laboratory studies were noted—especially serum iron and blood volumes, whenever these had been obtained.

After each chart had been evaluated, it was graded on the basis of 1-4, 1 meaning that the transfusion had been considered "indicated," 2, "probably indicated," 3, "probably not indicated," and 4, "definitely not indicated."

Results

Of the 2,918 transfusions administered which contained red blood cells, only 8.5 percent were administered as packed red blood cells, a figure well below the more acceptable 30 percent.

The opinion was, that of the 471 single-unit transfusions, 20 percent had been indicated, 15 percent probably indicated, 18 percent probably not indicated, and 47 percent definitely not indi-

TABLE 1

Transfusion Service

Harrisburg Polyclinic Hospital, 1962

No. Patients Transfused	1243
No. Receiving More Than One Unit	772
No. Receiving a Single Unit	471
Percentage Transfused Patients Receiving a Single Unit	38%
Use Factor $= \dfrac{\text{No. Units Transfused}}{\text{No. Hospital Patients for Year}}$	.1818

cated (Table 2). We were lenient, in considering transfusions "indicated" in patients actively bleeding on admission to the emergency room—although in most of these cases, bleeding was readily controlled, making the transfusions unnecessary. The "probably indicated" and "probably not indicated" groups are relatively large because of the inadequacy of some of the charts studied; much of this inadequacy was related to failure to follow the patient's peripheral blood indices, after transfusion.

TABLE 2

Transfusion Service

Harrisburg Polyclinic Hospital, 1962

No. Single-Unit Transfusions		471
1. Percentage Indicated	20%	
2. Percentage Probably Indicated	15%	
3. Percentage Probably Not Indicated	18%	
4. Percentage Not Indicated	47%	

Fifty percent of the single-unit transfusions, representing at least 235 units of whole blood administered during 1962, were definitely not indicated. Brief summaries of some of these instances are presented below.

Chiefly Surgical

It was not surprising that the vast majority of these transfusions were administered on the surgical service, those administered on the medical and pediatric services comprising only 14 percent. Fifty-eight percent of the transfusions were administered in the operating room, 32 percent in patients' rooms, and 10 percent in the recovery room.

Of the 471 single-unit transfusions, 338 were given to patients whose hemoglobin was 11 gm. or greater, prior to transfusion. In 203 patients, hemoglobin and hematocrit actually increased, following a transfusion. It was disheartening to note that in 133 instances, physicians prescribed blood with so little concern, that no post-transfusion hemoglobin or hematocrit studies were obtained (Table 3).

Another interesting observation was that 94 of the 471 patients (20 percent) could have been their own donors, a fact determined upon application of the American Association of Blood Banks' criteria for accepting a blood donor: elective surgery was not expected to occur for ten or more days; the patients' ages were between eighteen and fifty-five years; blood pressure was 100-200/50-100; and the patients' initial hematocrit readings were 38 vol. percent, or greater. Possibly if a patient is expected to be his own donor, these criteria could be liberalized, with an even greater percentage of people serving as their own blood donors.

TABLE 3

Transfusion Service

Harrisburg Polyclinic Hospital, 1962

No. Single-Unit Transfusions	471
No. Patients with Hemoglobin of 11 gm. or Greater, Prior to Transfusion	338
No. Patients Whose Hemoglobin and Hematocrit Increased, Following Transfusion	203
No. Patients on Whom No Hemoglobin or Hematocrit Was Obtained, Following Transfusion	133

Discussion

The fact that so many unnecessary blood transfusions are administered in the United States must be due to inadequate dissemination of information to physicians using the procedure. As Dr. Crosby noted in his original editorial, "Much of a person's 15 gm. of hemoglobin is a reserve against strenuous exertion. When there is no requirement for exertion, an individual can well tolerate a lower level of hemoglobin. For a sedentary life, 10 gm. is often sufficient, and many bedfast patients are comfortable with as little as 5 or 6 gm. Many patients can learn to live with chronic anemia. The hemoglobin concentration represents oxygen-carrying capacity, which is rarely a limiting factor during surgery. Blood-dilution studies made on patients, during surgical operations, have demonstrated that when blood volume is maintained, the vital signs do not begin to show a deficiency of oxygen-carrying capacity until the hemoglobin concentration is less than 7 gm."

In 1955, Wade and Hoffman[12] discovered that after restandardization of the method for hemoglobin determination in one hospital, the average value reported became 14.9 gm. percent rather than 11.1 gm. percent. After this change, the number of patients transfused in that hospital decreased by 50 percent. This caused Dr. Crosby to ask the disquieting question, "What do you treat—the patient, or his laboratory report, or your own anxiety?"

Results of studies such as the Wade and Hoffman one recall a statement by Cantor,[3] "A person will be liable for damages following and caused by a transfusion that was not indicated by the facts of the case. Even if no negligence could be proved, an action for damages would lie if the plaintiff could prove that the transfusion was not indicated medically."

In the United States, the current number of transfusions per year exceeds five million,[8, 9] with approximately three thousand deaths annually resulting from transfusion,[5] which thus ranks with appendicitis and anesthesia as a cause of death. The number of supposedly healthy voluntary blood donors who are carriers of the hepatitis virus ranges from 0.2 percent to 0.5 percent,[6] and the number of reported cases of clinical hepatitis occurring in recipients of blood averages between 0.3 percent and 0.8 percent.[7]

Our study coincides roughly with Morton's;[10] he evaluated 169 patients, each of whom received a single-unit transfusion (36 percent of a particular group of adults transfused during an eight-month period). His findings on the patients' need for transfusion were charted as follows: conservative, 10 percent; reasonable, 18 percent; questionable, 38 percent; and unnecessary, 34 percent. Allen and his colleagues reported a 36 percent incidence of a single-unit transfusion in Chicago.[10] Oxworth mentioned a 30 to 40 percent incidence in Cincinnati.[11]

Recommendations

Many studies such as the one made at the Harrisburg Polyclinic Hospital and presented here have demonstrated that many blood transfusions are unnecessary (Table 4). How can this dangerous and costly overtreatment be reduced to acceptable proportions?

In a community hospital, the several possible avenues of approach include: (1) establishment of a blood utilization committee, similar to a tissue committee, which would investigate all blood transfusions and report to the general staff of the hospital; (2) authority given to the blood bank director to investigate requests for blood, to question the need for transfusion, or to change the specification from one for whole blood to one for packed red blood cells, as he deems advisable (although he would of course be unable adequately to evaluate patients in surgery, the very ones who receive the greatest number of unnecessary transfusions); (3) more authority given the anesthesiologist in ordering and administering blood during surgery (although with the operating surgeon maintaining medical and legal responsibility for the patient, it is difficult for others to countermand such a vital decision as that involving the administration of blood); (4) ongoing education of the hospital staff regarding the practice of transfusing blood (the most sensible approach, and one with proven success).

At Providence Hospital, Washington, D.C., a blood-conservation program was initiated because a number of transfusion reactions occurred in patients who probably should not have been tranfused.[4] Based on the conviction that most physicians were not aware of transfusion hazards, an educational program was developed for instructing the staff concerning these hazards, and for determining whether or not united opinion could be obtained on valid medical indications for transfusions of whole blood.

During the latter half of 1953, a portion of each department's staff meeting was devoted to the subject of blood banking. Nonvalid reasons for blood transfusions were as follows: using blood (1) as a tonic; (2) to build body defenses; (3) to combat infections; (4) as a nutrient; (5) to improve the patient's sense of well-being; (6) to provide iron; (7) to satisfy the desires of the patient; (8) to satisfy the wishes of the physician wanting to "do something"; and for similar purposes.

A list of indications for blood transfusion—incorporated, late in 1953, into the by-laws of the medical staff of Providence Hospital—was amended in 1956 as follows: (1) to augment whole-blood volume depleted by hemorrhage, shock, burns, heart-lung pump, etc.; (2) for oxygen transport (an anemic patient, otherwise well, must have 7 gm. or less of hemoglobin/100 ml. of blood; an anemic patient with complications affecting oxygenation—such as cardiac insufficiency, respiratory embarrassment, etc., may be transfused if hemoglobin is less than 10 gm. percent; an anemic patient who will undergo anesthesia may be transfused if hemoglobin is less than 10 gm. percent); (3) for exchange transfusions; (4) for blood dyscrasias where a labile element is important (rare), in which case fresh whole blood is indicated.

Use Factor

One means of evaluating the amount of blood used by a community hospital is the *use factor,* determined by the number of units of blood transfused, divided by the number of hospital patients per year. At Providence Hospital, during the aforementioned 1953-60 period, the use factor decreased from 0.237 to 0.110. At Harrisburg Polyclinic Hospital in 1962, this factor was 0.1818. The success of the Providence Hospital blood-conservation program indicates that physicians duly educated will cooperate in abstaining from the unnecessary use of whole blood.

In recent years it has become reasonably simple, in most community hospitals, to obtain blood-volume determinations rapidly. The increasing use and intelligent interpretation of

TABLE 4

Typical Case Summaries

			Pre-Transfusion		*Post-Transfusion*		
Patient	*Age*	*Procedure*	*Hgb.*	*HCT.*	*Hgb.*	*HCT.*	*Physicians' Comments*
M.W. ♀	42	Hysterectomy	12.4	38	12.5	40	"No note of blood loss."
R.M. ♀	29	D. & E.	12.5	39	13.0	40	"A small amount of bleeding."
E.S. ♀	42	Hysterectomy	11.8	40	None	None	"Estimated blood loss, 600 cc."
C.W. ♀	44	Hysterectomy	11.2	36	12.5	40	"Estimated blood loss, 300 cc. Blood replacement for low hematocrit."
M.H. ♀	38	Laminectomy	13.4	34	None	None	"Blood of value from a preventative infectious standpoint."
M.W. ♀	31	Nephrolithotomy	13.4	41	None	None	"Very little bleeding."
H.C. ♀	39	Hysterectomy	12.5	41	12.2	37	"Blood ooze was probably in excess of one pint."
D.R. ♀	51	Hysterectomy	11.0	36	11.0	36	"Estimated loss, 350 cc. Blood given as supportative therapy."
C.B. ♂	72	T.U.R.	12.3	33	13.5	39	"His hematocrit was 38 vol. percent. It was felt safer to transfuse during surgery than to wait until later."
E.D. ♂	49	Aortogram	13.0	42	None	None	"Estimated blood loss, 500 cc."
R.B. ♂	29	Laminectomy	16.8	51.5	None	None	None—Vital signs stable.
A.Z. ♀	38	Hysterectomy	13.3	41	18.0	44	"500 cc. of whole blood given as supportative therapy."
N.S. ♀	42	Hysterectomy	14.9	43	None	None	"Estimated blood loss, 200 cc." Given in recovery room; no orders.
W.M. ♂	62	Prostatectomy	17.0	52	16.3	51	"Blood loss, approximately 500 cc."
E.G. ♀	48	CA. Cervix Insertion of Radium	8.5	32.5	10.0	34	Serum iron, 15 mcg. percent.
C.A. ♀	45	Hysterectomy	12.5	39	15.2	46	No evidence of hypotension; given by anesthetist.
V.L. ♀	24	Term Pregnancy	7.3	22	9.1	29	Delivered without complications—"Give blood if hgb. $<$ 10 gm." No studies as to cause of anemia.
M.L. ♀	81	C.H.F.	7.9	23	None	None	PBI, 2.9. Blood given 13th day. No studies regarding anemia.
M.F. ♀	44	Gastrectomy	13.2	40	None	None	"No transfusion required." Given in recovery room without orders on chart. Bp. 140/80 to 120/70.
M.W. ♀	24	Tubal Pregnancy	9.1	33	12.0	41	"Estimated loss, 100 cc. Blood given because of low hct." NOTE: diuresis.
J.M. ♀	45	Anemia	6.8	25	10.2	34	Transfusion 5th hospital day. Stools, neg.; G.I., neg.; B_{12} given. Discharged after 18 days. No further studies.

this study can significantly decrease the number of blood transfusions administered.

Common sense dictates that a human commodity which can be harmful as well as helpful must not be indiscriminately used. Obvious, too, is the fact that with transfusable blood sometimes in limited supply, only its beneficial, necessary use is justified.

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Patients with Angina Pectoris Treated with Griseofulvin

Herbert Unterberger, M.D.
Myron E. Resnick, M.D.
Philadelphia, Pennsylvania

GRISEOFULVIN has been useful in treating various superficial fungus infections (see page 27 of the Journal for December, 1964), but other claims have also been made for this drug. Cohen et al [1] found that it appeared to relieve the shoulder-hand syndrome, and De Pasquale et al [2] discovered that it reduced angina pectoris in ten patients. The daily requirement of glyceryl trinitrate was reduced by an average of 65 percent in these patients.

These successes in the cardiovascular field led to laboratory experiments on dogs, which showed that griseofulvin increased coronary blood flow *in vivo* and relaxed isolated coronary arterial segments *in vitro*.[3] At present, there is no intravenous preparation suitable for experimental use with human beings. We conducted, therefore, a double-blind clinical study, using griseofulvin tablets, to evaluate the efficacy, if any, of griseofulvin in angina pectoris.

Patients with established heart disease and angina pectoris were given unmarked bottles containing sixty tablets each, to be taken on the basis of one tablet four times a day; a new bottle was given to each patient every two weeks until he or she had used the contents of four bottles. Contents were from two batches of tablets known only as A or B. All patients received a bottle of A tablets initially, then B, then A, and then B, so that an ABAB pattern was established.

After completing the study, we revealed that batch A contained 125 mgm. of griseofulvin per tablet, and that batch B was the placebo. Urinalyses, blood counts, chest x-rays, electrocardiograms, and cholesterol determinations were done initially, with the latter three repeated at the end of the test. The patients, who were requested to chart each angina attack, were closely questioned about the frequency of their attacks.

Results

On the accompanying table, three patients are not reported; one, who experienced extreme vertigo from taking A, dropped out of the study; another, with a history of three myocardial infarctions, died suddenly just at the onset of taking B1; the third was considered too psychoneurotic and unreliable for inclusion in the study.

Statistical analysis of our results showed no beneficial result of the drug over the placebo, in the second trial. In the first trial, a T-statistic was calculated: 1.27. This was not significant at the 5 percent level. (T.05 = 1.729).

Electrocardiograms and cholesterol values were unchanged during the study.

TABLE 1

ATTACKS OF PAIN

	FIRST TRIAL		SECOND TRIAL		
	1ST 2 WKS.	2ND 2 WKS.	3RD 2 WKS.	4TH 2 WKS.	
Patient	*A1*	*B1*	*A2*	*B2*	*Remarks*
B. O.	10	8	4	25	Husband died during B2
M. W.	4	56			Stopped drug, due to headache
S. Z.	13	40	20	10	
M. S.	3	3	10		Bled from gastritis while on B2. (Was also on Coumadin)
C. T.	5	42	10	7	
S. O.	15	24	23	19	Dentist, most reliable patient in study
M. H.	3	3	3	0	Had frequent attacks prior to study
M. B.	0	0	0	0	3-5 attacks per day, prior to study
L. H.	15	10	17	4	
V. M.	12	14	12	10	Nausea during A2
E. H.	10	8	10	7	
J. W.	21	24	22	17	Nausea during A1
R. L.	31	12	28	14	
E. V.	12	10	13	15	
C. B.	20	11	18	8	
G. B.	4	0	3	1	Frequent attacks prior to study
J. B.	15	17	5	14	
M. E.	34	45	28	35	
M. V.	24	30	14	31	
Total	251	357	240	217	

Conclusion

We could not, on the basis of this study, demonstrate any value in the use of griseofulvin in the treatment of patients diagnosed as having chronic angina pectoris.

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Atrial Flutter and Fibrillation

WHILE THE MECHANISM of atrial flutter and fibrillation in man is still unknown, it is certain that in the experimental animal, both arrhythmias can be caused by rapid impulse formation in one center.

The data speaking for the occurrence of a reentry mechanism are evaluated, and recent experiments speaking for and against reentry are analyzed. It is concluded that such a mechanism is possible, and is proven to exist in certain experiments in muscular rings, but that there is no proof that reentry causes flutter or fibrillation.

One should not conclude, on the basis of a different response to quinidine or procaine amide, that two forms of flutter exist. The atrial flutter must be separated from paroxysmal atrial tachycardia. It is postulated that atrial and ventricular fibrillation are caused by rapid impulse formation in one center with rates over 500 per minute. This high rate leads quickly to recruitment of other centers of impulse formation.—DAVID SCHERF, M.D., Fourteenth Hahnemann Symposium.

Wireless Pacemaker Will Control Heart

A WIRELESS, radio-frequency cardiac pacemaker is being developed at Philadelphia's Albert Einstein Medical Center.

The new device, carried outside the body, will broadcast electrical impulses which, when picked up by a tiny wire loop implanted in the heart, will control the rate of the heartbeat.

Principal investigator in the research project is Dryden P. Morse, M.D., senior attending surgeon in Einstein's department of thoracic surgery. The project is supported by a federal grant.

Flagyl destroys trichomonads
here & here & here & here
No topical treatment can

Flagyl®
brand of
metronidazole

Flagyl eliminates the difficulties and frustrations that have long attended the treatment of trichomonal infection.

These difficulties arose mainly from:

1) the failure of any previously known agent to destroy the protozoan in paravaginal crypts and glands;

2) the failure of any previously known agent to prevent reinfection by eradicating the disease in male consorts.

The introduction of Flagyl removed both of these long-standing deficiencies. Hundreds of published investigations in thousands of patients have confirmed the ability of Flagyl to cure trichomoniasis.

Correctly used, with due attention to repeat courses of treatment for resistant, deep-seated invasion and to the presumption of reinfection from male consorts, Flagyl has repeatedly produced a cure rate of up to 100 per cent in large series of patients.

Nothing cures trichomoniasis like Flagyl.

Dosage and Administration

In *women:* one 250-mg. oral tablet t.i.d. for ten days. A vaginal insert of 500 mg. is available for local therapy when desired. When the inserts are used one vaginal insert should be placed high in the vaginal vault each day for ten days, and concurrently two oral tablets should be taken daily.

In *men:* in whom trichomonads have been demonstrated, one 250-mg. oral tablet b.i.d. for ten days.

Contraindications

Pregnancy; disease of the central nervous system; evidence or history of blood dyscrasia.

Precautions and Side Effects

Complete blood cell counts should be made before and after therapy, especially if a second course is necessary.

Infrequent and minor side effects include: nausea, unpleasant taste, furry tongue, headache, darkened urine, diarrhea, dizziness, dryness of mouth or vagina, skin rash, dysuria, depression, insomnia, edema. Elimination of trichomonads may aggravate moniliasis.

Dosage Forms

Oral–250-mg.tablets/Vaginal–500-mg.inserts

SEARLE

Research in the Service of Medicine

CARDIOVASCULAR BRIEFS

Major and Minor Cerebrovascular Episodes

Part II

What is the best modern therapy in the presence of a cerebrovascular (CV) accident?

First, gather all the data—by means of a complete history and a thorough physical examination. No single program is applicable to all patients in this group; some may show signs pointing to the possibility of surgical intervention; for others, the use of an anticoagulant drug may be indicated. Many clinicians place their faith in the antihypertensive agents; others use estrogen therapy as the main potent agent; still others prefer to remain "therapeutic nihilists" in these cases.

Which patients are selected for surgical relief?

When physical examination indicates a blocked carotid, vertebral, innomate, or subclavian artery, surgical treatment should be considered early; these vessels are located so that a direct approach is possible. Such procedures include thromboendarterectomy, end-to-end vessel graft, by-pass shunts, and in some instances, ligation. After all aspects of the patient's condition have been evaluated, the surgeon decides for or against operating. Extensive disease in arteries of the brain (revealed by preoperative angiogram), plus the patient's age, a poor overall general condition, and the presence of long-standing neurological signs, may be contraindications. On the other hand, prompt diagnosis and surgical relief of such entities as subdural hematomas may be life-saving. At times, the result of operation is striking. Unfortunately, the number of patients chosen for surgical treatment remains small.

What treatment do you recommend for the so-called "little strokes" occurring in inaccessible cerebral vessels?

These are a major challenge. In some, the findings are transient and recovery is rapid and complete. Many patients have several minor episodes before a massive attack appears. In cases of thrombosis, anticoagulants are often used initially, and on a long-term basis.

Can the use of anticoagulants affect the extent of a cerebral infarct following an embolism?

I do not think so. Should there be an initial hemorrhagic process, an anticoagulant drug would affect the cerebral situation adversely. Every patient's status should be carefully evaluated before an anticoagulant is prescribed. This drug is given, of course, in the hope that the source of the embolus will be favorably affected.

Are estrogenic substances valuable in the management of CV accidents?

I am unaware of any preparation in this group that can uniformly be depended upon to increase cerebral blood-flow. Although inhaling a mixture of 95 percent O_2 and 5 percent CO_2 increases cerebral flow, its value in the presence of a CV complication remains to be proved.

Are anticoagulants valuable in treating a cerebral circulatory accident when hemorrhage is suspected?

When hemorrhage of any degree is suspected, use of any anticoagulant is absolutely contraindicated.

What is the present status of thrombolytic enzymes in CV complications?

When originally introduced, these preparations were promising, but they have proven disappointing and are not to be recommended—at least until further research has been done.

Will you summarize the essential valuable features in management?

Diagnose the complication early, be sure of its nature, discuss a program of rehabilitation with a physical therapist and an occupational therapist, then determine the earliest time at which a program of activity may be resumed. Take time to be interested and hopeful. Return the patient to his family as early as feasible, and gain their full cooperation in advancing the chosen plan of therapy. Use an arteriogram as a guidepost when dealing with a thrombotic lesion.

• Herbert Unterberger, M.D., questions William G. Leaman, Jr., Fellow, Council on Clinical Cardiology of the American Heart Association, Philadelphia, Pennsylvania. Dr. Leaman prepared this brief for the Council on Scientific Advancement, in cooperation with the Pennsylvania Heart Association.

Are Pennsylvania's Poison Control Centers Adequate?

Charles R. Hayman, M.D.
Washington, D.C.

Gerald F. Blaum
West Reading, Pennsylvania

IN **1955**, the Dauphin County Medical Society established, in Harrisburg, Pennsylvania's first poison-control center. Two years later, the United States Public Health Service set up the National Clearing House for Poison Control Centers, by which fourteen hospitals and one local health department in Pennsylvania subsequently have been formally accredited. About one hundred other hospitals in the state have received, from the Pennsylvania Department of Health and the Pennsylvania Chapter of the American Academy of Pediatrics, information on organizing facilities and on specific poisons and potential poisons.

When personnel of the regional office of the Health Department were made responsible for evaluating the poison-control program, they surveyed Region VI—Berks, Carbon, Dauphin, Lancaster, Lebanon, Lehigh, Montour, Northampton, Northumberland, Schuylkill, Snyder, and Union Counties. Of the thirty-two general hospitals in this region, twenty-seven are voluntary nonprofit institutions, four are state operated, and one is privately owned. Bed capacities range from forty-three to seven hundred and fifty. The six poison-control centers, and nine other hospitals with over two hundred-bed capacity we termed "centers" and "other large hospitals"; seventeen with fewer than two hundred beds we called "small hospitals."

The centers have received, from the Clearing House, an initial card file on poison, with supplementary cards and bulletins frequently issued in regard to new products, such as those in the drug and detergent categories. The centers, which are supposed to report poison cases to the Clearing House, presumably have information readily available on uncommon and rare poisons. One purpose of the survey was to learn in what ways, if any, the centers differed from other hospitals of comparable size.

Procedure

In the fall of 1964, a specially-trained lay person made an unannounced visit to each hospital, spoke to the administrator briefly, ascertained which individual was in charge of poison control, and, if this person was in the hospital, interviewed him. The facilities located in the emergency room were inspected, and the person then in charge was asked a prepared set of questions.

Personnel Coverage

In twenty-four of the thirty-two hospitals, one person had been designated as responsible for poison control; seventeen of these were medical doctors, three were osteopathic physicians, and four were registered nurses. In all six centers, an M.D. was responsible, whereas in two out of nine other large hospitals, no doctor had been appointed, and in six of seventeen small hospitals, no one had been designated.

At the time of survey, between 9:00 A.M. and 5:00 P.M. on a weekday, five M.D.'s and twenty-seven R.N.'s were found actually in charge, at the respective facilities. Three of the doctors were in the centers. The twelve M.D.'s and the three D.O.'s who had the responsibility but were not in the hospital, were on call, and presumably could be contacted by telephone.

In all hospitals, diagnosis and treatment of accidental poisoning was carried out as one function of the accident or emergency section. The centers had twenty-four-hour on-duty coverage, at least one M.D. and one R.N. being present in the hospital at any one time. Five out of nine other large hospitals always had an M.D. on duty, and all had an R.N. Of the seventeen small hospitals, one had twenty-four-hour D.O. coverage, and six had registered nurse coverage (Table 1).

Facilities

In thirty-one institutions, specific medications for cases of poisoning are kept in one cabinet or area in the accident room or emergency care section.

• Dr. Hayman, former Medical Director of Region VI, Pennsylvania Department of Health, is Associate Director for Preventive Services, District of Columbia Department of Health. Mr. Blaum is Environmental Safety Representative, Region VI of the Pennsylvania Department of Health.

We used a list of antidotes and medications, obtained from the American Association for Poison Control Centers[1] and brought up to date by the Clearing House. Twenty-five hospitals, including all the centers, had the "universal antidote"; one large hospital and six small ones did not. Of forty-three other medications recommended by the Association, 96 percent were in the centers' emergency rooms and 4 percent in their pharmacies. The other large hospitals had 83 percent of these recommended medications in the emergency rooms, and 13 percent in the pharmacies. The small hospitals had an average of 77 percent of these medications in the emergency rooms, and 13 percent elsewhere in the hospital.

TABLE 1

Region VI

Personnel Coverage for Poison Control

Hospital Size		*Designated Responsible*			*On Duty At Survey*			*24-Hour E.R. Coverage*		
	No.	MD	OD	RN	MD	OD	RN	MD	OD	RN
Center	6	6	–	–	3	–	3	6	–	6
Other lge.	9	7	–	–	1	–	8	5	–	9
Small	17	4	3	4	1	–	16	–	1	6
Total	32	17	3	4	5	–	27	11	1	21

Twenty-three hospitals have pharmacies, each with a pharmacist on either a twenty-four-hour duty or an "on call" basis. Nine small hospitals without pharmacies have drugs in a drug room or in the central supply section.

Thirty hospitals had 95-100 percent of the thirty-five of the items of equipment and supplies recommended by the Association, and reviewed by the Clearing House. Two of the smaller hospitals had 80 percent and 85 percent, respectively.

Reference Material

The Clearing House had given us a list of five primary references (see box) and thirteen secondary ones. The centers had an average of 3.0 primary references, other large hospitals had 2.6, and small hospitals, 1.6. This is an exact count of references available in each emergency room. In many instances, however, persons interviewed did not know which references on poisons, if any, were in the hospital library.

Center personnel expressed a preference for: *Handbook of Poisons, Clinical Toxicology of Commercial Products*, and the Clearing House card file, in that order. All centers maintained the file, with new cards on drugs and commercial products placed in proper sequence. They also received monthly or bimonthly bulletins on poison control from the Clearing House which some of them filed separately. The University of Rochester sends regular bulletins supplementing *Clinical Toxicology of Commercial Products*. Only one center had been able to transfer the information from the bulletins to the card file, as recommended by the publisher.

Records and Reports

Although the hospitals kept no records of telephone inquiries regarding poison episodes, all had received many calls from physicians and lay persons (the latter chiefly mothers of small children). Calls ranged from none to fifty per month, the larger hospitals receiving the greatest number. During 1964, only three centers had received calls from other hospitals or from unaffiliated doctors.

In the month prior to the survey, four centers recorded four, nine, seventeen, and twenty patient visits, respectively. Three other large hospitals received six, eight, and twenty-two visits. One small hospital recorded no visits, two hospitals could not produce the previous month's record, and twenty-two kept no readily available record for poison cases.

During the previous year, five of the six centers had reported treated cases to the Clearing House; reports each month averaged four, four, ten, fifteen, and twenty-three, respectively. Three other large hospitals averaged reports on five, nine, and eleven cases; one small hospital reported one case per month.

Educational Activities

Through November, 1964, none of the hospitals had held general staff conferences regarding poison control, but conferences for the staffs of poison-control facilities were held by two other large hospitals and one small hospital during the year. Personnel of one center provided material for newspaper articles and gave talks to several P-TA's, during Poison Prevention Week in March, 1964.

Comments

In Region VI, between January, 1963, and June, 1964, three children one, two, and four years old died of salicylate poisoning, and a two-year-old died from ingesting an industrial solvent. ("There may be about seven hundred nonfatal accidental ingestions for every fatal poisoning.")[2] In addition, three children died of presumably accidental carbon monoxide suffocation.

Fatalities to adults in the same eighteen-month period included seven from an overdose of barbiturates, two from other soporifics, one from alcohol poisoning, and sixteen from carbon monoxide inhalation. Most of these appeared to be suicides. The ratio of attempts to fatalities may range from 50:1-100:1.[3]

About 85 percent of accidental ingestions occur in children under five years of age.[4] Intentional poisonings occur in older children: a report from New York City emphasizes the marked frequency of attempted suicides, using chemical agents, in adolescents twelve to twenty years of age.[3] Attempted suicide occurs most frequently in adults. Thus, hospitals prepared to treat accidental poisoning in children should be even better prepared to treat suicidal ingestion and inhalation in adolescents and adults.

In his study of the Boston Information Center, Robb felt the center gave valuable information, since "neither parents nor physicians can be expected to know the ingredients and toxicity of the myriads of new products to which children may be exposed."[5]

In Pennsylvania's Region VI, all hospitals seemed well prepared to give information about most accidental poisonings, and to diagnose and treat most cases. The centers seemed slightly better prepared than other large hospitals in respect to immediate availability of professional staff, and completeness of reference material. Both were better prepared than the small hospitals. The differences seem directly related to hospital size, interest in the training of resident and intern staff, and quality of all emergency outpatient service.

An annual statewide or regional seminar on poison control could help bring personnel in all hospitals up-to-date on current organization of facilities, and on specific techniques.

Center for Entire State

With an ever-present need for expert knowledge, a complete, constantly updated information center functioning twenty-four hours a day would be invaluable for quickly supplying vital answers to telephoned questions from physicians and from hospital personnel throughout the state. The Philadelphia Information Center, operated by the Office of the Medical Examiner, Philadelphia Department of Public Health, is one existing facility which could be further developed, with state aid, to meet all foreseeable needs.

Prevention of Poisoning

An important function of poison-control facilities is that of educating the public to *prevent* accidental poisoning and other accidents. The time of crisis presents the best psychological opportunity: the doctor or nurse can instruct the family to lock up drugs in the medicine cabinet, store insecticides out of reach of children, and so forth. The hospitals we surveyed are not capitalizing on this opportunity.

As is done in Northampton County, a public health nurse or a visiting nurse can make a follow-up visit to the home. This presents an opportunity to note and correct accident-producing practices and conditions.

Finally, many centers in other states have publicized their activities by means of talks to P-TA's and civic groups and the use of newspaper articles and radio and television features. Such activity by physicians, nurses, and interested laymen can help prevent many accidents and emergencies brought about by carelessness, indifference, or ignorance.

These poison-control references are recommended by the Pennsylvania Department of Health and the National Clearing House for Poison-Control Centers, United States Public Health Service:

Handbook of Poisons, by Robert H. Dreisbach, M.D. (Lange Medical Publications, P. O. Box 125, Los Altos, California, fourth edition, 1963). *Clinical Toxicology of Commercial Products*, by Gleason, Gosselin, and Hodge (Williams and Wilkins Co., Baltimore, Maryland, second edition, 1963). Regularly, the University of Rochester School of Medicine and Dentistry sends bulletins supplementary to this volume. *Physicians' Desk Reference* (Medical Economics, Inc., Oradell, New Jersey, eighteenth edition, 1964). *Poisonous Plants of the United States*, by Walter C. Muenscher (MacMillan Co., New York, revised edition). *Pharmacological Basis of Therapeutics*, by Goodman and Gillman (MacMillan Co., New York, second edition, third printing, 1956).

The following are sent to accredited centers only: the initial card file, supplementary cards, and bulletins—National Clearing House for Poison-Control Centers, United States Public Health Service, Washington, D.C.

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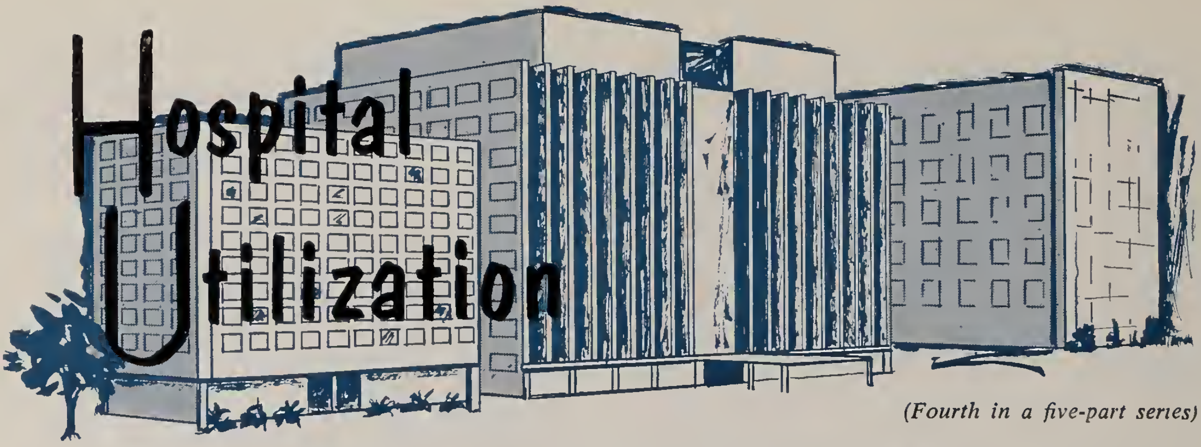
SESSION '66

■ The 1966 Annual Session of the Pennsylvania Medical Society will be held October 11-14 at the Penn-Sheraton Hotel in Pittsburgh.



(Fourth in a five-part series)

WHERE IS THE DAY LOST?

A REVIEW OF INDIVIDUAL hospital cases should have one main goal—to discover the patterns which run through all the cases of a particular diagnosis. It definitely is NOT an attempt to find the mythical case of supposed abuse.

What might one find in looking at cases? Here is what was found in a study of 375 herniorrhaphy cases in 1964:

	Day of Week Admitted						
Day of Week of Surgery	**Sat.**	**Sun.**	**Mon.**	**Tues.**	**Wed.**	**Thur.**	**Fri.**
Mon.	36	13			2		10
Tues.	12	77	9	1	1		2
Wed.	3		22	9		1	
Thur.	4	8	9	47	5	1	4
Fri.	1	1	3	2	22	9	1
Sat.			1		4	48	7

Note: While a one-day preoperative stay was "planned" for this group of cases, only 52 patients, or 14 percent, actually underwent surgery on the day following admission. Two-thirds of the cases were done on the third hospital day; the remainder waited longer for their surgery.

As can be seen, about two-thirds of the cases were operated on two days after admission. Only about 14 percent of these elective herniorrhaphies were done in one day, while almost one-fifth were done three or more days after the patient was admitted. Why?

If your hospital is shown to have a longer average experience in caring for a specific type of patient, what do you look for that may account for this?

—YOU LOOK for anything other than medical reasons why a patient might stay longer. YOU LOOK for problems in scheduling . . . problems in admitting . . . delays in obtaining laboratory or x-ray studies. YOU LOOK for the one day that could be saved, per patient, beyond the time needed to care for the patient in the best possible manner.

NEXT MONTH . . . What Is Your Utilization Committee Doing?

EDITORIALS

A New Year — A New Era

WE ARE ENTERING a decisive year: what we do in 1966 will have an unprecedented effect upon the status and stature of our profession. The decisions and plans of our medical organizations deserve our concerted sanction and support. The integrity, courage, and ability of our elected leaders merit our admiration and loyalty. We must begin this new year by taking stock of our individual resources, giving serious forethought to personal performance; what each physician does, and the way he does it, will decide whether medicine will rise to new heights or fall into the shadow of subservience.

The sea of varied problems around us can engender various personal responses. Most common and perhaps most human of these is to try to avoid problems by ignoring them: "I just want to continue doing my best to take care of my patients. I have no taste or ability for the dirty business of politics," says the man who harbors this outlook. Or we may hear, "What do I care about hospital utilization? Let the same old clique run it, while I look after my own interests." Such a man may make a great show of virtuous devotion to duty while permitting his birthright to be swept away. Each of us would be well advised to resolve to examine the whole picture, doing his duty to *all* aspects of the profession.

We may mistakenly assume that the justice of our position obviates an outspoken defense. We may believe that good taste demands our refraining from striking a discordant note, in certain social or professional circumstances, by stating our position. We may erroneously define the word "gentleman," trying to please everyone we meet. Or perhaps we simply dislike controversy.

We can afford none of these attitudes in 1966. Let us resolve not to be silent when we should speak. Our attitude is not murine, therefore let us be heard with a leonine voice.

A time of trouble should not be an occasion for complaining, nor for seeking favoritism from our fellow citizens. It should be, rather, an opportunity for growth and development. If we are to place and keep our profession on an even higher plane than it has known in the past, we must turn in above-average performances. If we are to give stature to the discipline we follow, we must achieve more than a median goal.

But the mere fact of our having taken a medical degree does not confer extra ability in the area of human relations. If Robert Louis Stevenson's statement is true, that the physician—almost as a rule—stands above the "common herd," this status does not imply that the physician is divinely infused with some sort of extra power. What it does mean is that the medical profession can attract people of courage and ability, and bring out the best in them.

Let us therefore resolve to be worthy of praise from our fellowmen, and to attain greater integrity, a higher degree of service to our patients, and a nobler devotion to our country and its citizens, by striving to be bigger men and better doctors as with determination we attack problems in the light of our education and experience.

Let us be, not a "minority" group, but an elite one, by right of achievement.

Medicine's Helpmate

THE YEAR 1966 may prove to be one of the most crucial years in the history of medicine. What part can physician's wives play in the events and decisions that lie ahead?

Chaucer said, "God, when he made the first woman, made her not of the head of Adam, for she should not climb to great lordship; God made not woman of the foot of Adam, for she should not be holden too low; but God made woman of the rib of Adam, for woman should be a fellow to man." That is our desire as an auxiliary to the Pennsylvania Medical Society—to be a fellow, or helpmate.

It is good, at the beginning of a new year, to look inward, then to look ahead. Someone has said that "we must sell, to survive," a challenge not only to Auxiliary, but also to our system of American medicine and our systems of government, industry, and business. To survive, we must prove our right to survival; to succeed, we must sell our way to success. It is no longer sufficient that we are right—we must broadcast the fact.

Just as America must sell its system of government to the world, and just as medical men and their organizations must sell the American system of medicine to all Americans and to the rest of the world, so our Auxiliary must sell its policies and programs, its beliefs and convictions. We physicians' wives must aid in selling our husbands' profession, and, day by day, must sell our Auxiliary.

What this actually means is that we must sell *membership* in Auxiliary, to survive. We must increase our membership until it is comparable with that of the Pennsylvania Medical Society. Only

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• **Opinions expressed in contributions to this Journal are those of the writers, and do not necessarily reflect the views of the Pennsylvania Medical Society.**

then can we know that we have "sold" sufficiently to survive.

Doctor, if your wife is not an Auxiliary member, encourage her to affiliate with us and participate in our programs. If she is an inactive member, urge her to become active. Auxiliary needs the wife of every physician. There is much to be done, and the work and expenses of the Auxiliary's program should be shared by all physicians' wives. The Auxiliary will then truly be a helpmate, able to provide the fullest assistance to the State Society and to the medical profession.

Mrs. Lucian J. Fronduti,
President, The Woman's
Auxiliary to the Pennsylvania Medical Society.

The Power Of Women

WE PHYSICIANS need all the help we can get in preserving the integrity of medical practice in the United States. The continuing rapid increase in our scientific knowledge and capabilities, the radical and accelerating social changes going on around us, and the shifting character of our political scene, all demand our constant attention, and often require emergency action. Since we must, through all this, still attend to our patients' needs, there just is not sufficient time for optimum social and political activity. We do need all the help we can get!

But we fall short of using all the assistance available—notably that which our Woman's Auxiliary offers. Although doctors often fail to exploit their assets, I can think of no more flagrant instance than this—our failure to build up the strength and capabilities of the woman's auxiliaries to our medical societies, at all levels.

There are twice as many members in the Pennsylvania Medical Society as there are in its Woman's Auxiliary—striking evidence of an apathy which seriously counterbalances our most conscientious efforts.

The political action capabilities of Auxiliary members are evidenced in reports published in our Journal—as are signs of the women's effective work in public relations, civic activities, fund-raising projects, and a host of other community endeavors. Many of these projects have directly affected your practice, doctor. Perhaps the availability of a Good Emergency Mother Substitute as a gem of a baby-sitter did not often facilitate your patient-care; but the Auxiliary members' volunteer work in the hospital, and their providing of meals for geriatric and other patients unable to prepare their own food, may have been better therapy than your direct ministrations. And the supplying of a homemaker when the lady of the house is under your care in the hospital has a curative value which you may not be able to outdo.

Through all this, half of us placidly sit by while our ladies remain outside an organization which so ably complements our efforts. The Auxiliary achievements we have mentioned are not nearly so numerous nor so widespread as they could be if the wife of every doctor were active in the work, contributing whatever her capabilities permitted.

Beginning with this issue of the Journal, the familiar section devoted to Woman's Auxiliary activities will no longer appear. The ladies have withdrawn to their own publication—a move which will enable them to circulate their news more effectively. We congratulate them on this additional advance.

We congratulate them, but we do not intend to disregard their activities in our Journal pages. Space will often be devoted to sharing Auxiliary news with the doctor, so that he may be apprized of the projects of one of his greatest assets—the Woman's Auxiliary. We hope, thereby, to evince stronger and steadier physician support for this organization which wants so earnestly to lend the doctor a hand, and to be an active part of organized medicine.

On Being Ordinary Mortals

WITH OUR RECENT defeat on medical care for the elderly, it would be quite reasonable, perhaps, to assume a defeatist attitude and "step up to the trough" with the rest of them. And we could certainly justify this action, with our past record of providing free care to the needy, our terrific fight against socialization of medicine, and the rejection of the benefits of Social Security for ourselves.

But isn't it about time we cut out the baloney? We lost the fight because we were too late with too little. We bombarded the public and our legislature with meaningless principles such as "free choice of physician" and talked about charity service, to the extent that we at times felt guilty [in charging] a reasonable fee.

LET'S FACE IT—free choice of physician is often a myth, and we have resented much of the charity we have provided. We have depended too much upon the natural respect of the public for us to cover our lapses in logic and disinterest in disciplining our own. The "laparotomist" and the "hospital utilizer" are still among us, and probably will be until someone controls them for us.

Nevertheless, why can't the growing "damn the public" attitude be an added stimulus to us to be what we say we are? What's wrong with being ordinary mortals, well trained in the science and art of medicine, without shame, expecting a fair fee for good service—and nothing more.—From an editorial in the September *Indiana County Medical Society Letter-Bulletin,* Ralph J. Miller, M.D., Editor.

In the Incoming Mail

Vice-Speaker Speaks

Congratulations on one of the best issues of the Pennsylvania Medical Journal that I have seen [November]. The articles and features are outstanding, and should certainly improve readership considerably.

William Y. Rial, M.D.,
Swarthmore.

Reference Protest

The omission of the bibliography from a scientific publication, and notation "For a bibliography, write the Journal," is a most disturbing and frustrating finding.

This evening I finally took time to reread a couple articles from the June, 1965, Pennsylvania Medical Journal. In particular, I wanted to read the original articles referred to in one place by Drs. Goddard and Phillips. Alas, "For a bibliography, write the Journal."

I believe the caliber of the Journal is lowered considerably by just such policy. I trust it will be discontinued forever.

Pearl G. McNall, M.D.,
Carnegie.

[**Editor's note:** With the July, 1965, issue of the Journal, publication of bibliographies of reasonable length was resumed. Only in instances where the number of references is exceedingly high are we forced to omit the listings.]

Words to Glow By

I like the November, 1965, number of the Pennsylvania Medical Journal very much. You did a magnificent job. With warm regards,

Eugene P. Pendergrass, M.D.,
Philadelphia.

And Then Again—

On the "This Month" page of the October issue [of the Journal] is a blurb leading me to believe that on page 35 I'll read world-shaking evidence that proteolytic enzymes have been proven effective.

A cursory examination of the article reveals that eleven subjects with nine different diagnoses were given this wonderful drug—six of these conditions *not* appearing in the "placebo group," while eighteen subjects with thirteen different diagnoses were given the placebo, ten of these conditions *not* appearing in the Orenzyme group, thus leaving three diagnoses common to each group.

I am neither a nit-picker nor a statistician, but I am familiar with the rules of evidence and have been a reasonably competent clinician for thirty-six years; but I believe that complex statistical analysis of such data only lends it an aura of respectability, without actually proving anything. And I'm still not convinced that this class of drugs is at present any more useful than any other expensive placebo.

Edgar S. Krug, M.D.,
State College.

The Voice of Medicine

Since its origin, the Pennsylvania Medical Political Action Committee (PaMPAC) has been charged with responsibility for initiating political education and action that will make the voice of medicine a more important factor in government.

Pennsylvania physicians' leadership and dedication have resulted in significant achievements in the area of these objectives. If PaMPAC is fully to carry out its designated mandate, however, it will require financing appropriate to the task—significantly above the revenue of the past several years.

Recognizing the task to be performed, and the crucial nature of the 1966 Congressional elections, the PaMPAC Board of Directors has altered the dues structure for the coming year. The physician membership for 1966 is $25, which falls below the median range of state PAC dues; as in the past, this is a combined American Medical Political Action Committee-PaMPAC membership. The difference this year is that there will be no attempt to solicit additional memberships from another family member, such as the physician's wife.

A physician's financial support of PaMPAC is one way in which he can be an effective citizen; another is his consideration of how he can contribute to his political party in a manner compatible with the objectives of medical practice within our free enterprise society.

Robert F. Beckley, M.D.,
Chairman, PaMPAC.

100,000
PENNSYLVANIANS
for the promotion of economic growth
501 South Office Building State Capitol
Harrisburg, Pennsylvania

Public Health Service Expands 'Pap' Test Program

THE PUBLIC HEALTH Service has expanded its "Pap" test program with a goal of providing cervical cancer tests for most women who enter hospitals and many of those who see physicians for any reason.

A total of $6 million has been allotted for the expanded nationwide campaign, according to the Washington office of the American Medical Association.

GRANTS WILL BE made to hospitals, medical schools, state and local health departments, and nongovernment health groups, for such projects as training of technicians, postresidency training of physicians, purchase of laboratory equipment, examination of hospital outpatients.

The American Academy of General Practice has been implementing, since last March, an office cancer-detection program for the PHS. A PHS spokesman termed the program "most effective," although not costly.

THE PHS EXPECTS to achieve its goal in hospital tests within the next five years, with the number of hospitals providing this service to all adult women patients increasing each year during this period.

Hospitals providing care for the poor and medically indigent will receive first consideration in the awarding of grants. Usually, these patients have not been tested for cervical cancer, the PHS said. Surgeon General William H. Stewart regards the new hospital-based screening program, reaching high-risk, low-socioeconomic groups, as "a truly effective" means of fighting cancer—through the "Pap" test for early detection.

ALTHOUGH THE "Pap" test was developed more than 20 years ago, only 20 percent of the nation's 62 million adult women had received the test as of last year, the PHS said.

The report of the President's Commission on Heart Disease, Cancer, and Stroke proposed a national cervical-cancer-detection program as the next logical step in expanding the limited activities previously carried out in connection with the PHS' Cancer Control Program. The clinical training programs for cancer control will have $6 million available for the next 12 months—double the amount previously available. The grant-aided programs will be carried out by medical schools, and hospitals, and by such health groups as the American Cancer Society, the American Academy of General Practice, and state and local health departments.

After President Johnson named the National Advisory Council on Regional Medical Programs to advise the government on projects authorized by the Heart Disease, Cancer and Stroke law, James Z. Appel, M.D., AMA president, expressed regret that "the AMA was not asked to submit any nominations to this important body."

"Frankly, we are disturbed that the PHS has taken this action, in view of our known interest in this act and the inclusion, before its enactment, of the 20 amendments we had proposed," Dr. Appel said. "You may remember that one of the amendments incorporated into the final bill was our suggestion that the Advisory Council have final authority in approving or disapproving grant requests rather than [having] only advisory authority as initially provided."

Nonetheless, Dr. Appel told the AMA House of Delegates in Philadelphia:

"If we provide effective leadership, and if the PHS cooperates, it may be that this law will permit the development of programs which will benefit the public and be acceptable to the profession. I cannot urge you strongly enough, therefore, to take steps now, through appropriate state and local society committees, to meet with medical school deans, state health department directors, teaching hospital administrators, and department heads, in an effort to establish jointly a series of programs under the act that would be wholly beneficial."

Explanation

MEDICARE'S PART B

■ PART B of medicare provides for the following two methods of payment to physicians:

1. The physician bills the patient directly, who in turn forwards the receipted bill to the carrier for reimbursement of 80 percent of the amount thereof, if determined to be reasonable by the carrier; or

2. The physician accepts an assignment of the patient's right to reimbursement and bills the carrier directly, receiving thereafter 80 percent of the "reasonable" charge for the services, as determined by the carrier. The physician is precluded from recovering from the patient more than the remaining 20 percent of said charge.

NOTE: Under either method of payment, there is a $50 annual deductible which must be borne by the patient.

MEDICAL SOCIETY NEWS

Medicare Chief to Speak At Officers' Conference

THE MAN WHO is shaping and will administer the federal medicare program will be one of the participants in the State Society's 1966 Officers' Conference in Harrisburg April 28-29. Arthur E. Hess, director of the Bureau of Health Insurance, Social Security Administration, will appear on a panel with several others who have been chosen to represent varying opinions about medicare.

DR. ANNIS

EDWARD R. ANNIS, M.D., of Miami, former president of the American Medical Association, who is well known to Pennsylvania physicians, will be the keynote speaker.

The theme of the two-day conference, the State Society's second largest session of the year, will be "Medicare."

PANELISTS TO appear with Mr. Hess will be Russell B. Roth, M.D., of Erie, chairman of the AMA Council on Medical Service and Speaker of the PMS House of Delegates, Ever L. C. Curtis, M.D., of the AMA Speakers' Bureau, and Richard Suck, administrator of Bethlehem's St. Luke's Hospital.

The PMS Board of Trustees and Councilors, in a special meeting last month, supported the concept of direct billing for professional services under part B of medicare (see direct-billing option under part B on opposite page).

THE BOARD also officially recognized the advantage of maximum participation by the eligible public in the part B portion of medicare.

It gave "strong support" to the inclusion of anesthesiologists, pathologists, physiatrists, and radiologist under part B, and to billing for these services on a fee-for-service basis.

Dr. Flannery Named Chairman Of Committee on Objectives

THE REORGANIZED and expanded Committee on Objectives will hold a second session next month to continue long-range planning for the State Society.

Wilbur E. Flannery, M.D., former president of the PMS, was elected chairman of the group at the first session in December. George S. Klump, M.D., was named vice-chairman.

THE COMMITTEE will meet quarterly as a whole, and will call on consultants to assist with its work. One of its responsibilities will be to recommend priorities for PMS programs.

It will make recommendations to the Board of Trustees and House of Delegates.

Have You Heard?

- There are approximately 350,000 mentally retarded persons in Pennsylvania, of whom 46,200 are attending public schools.
- Some 1,478 mentally ill Pennsylvanians were rehabilitated to useful jobs in the last fiscal year, through the federal-state vocational rehabilitation program.
- Fourteen new medical schools (including one at Hershey, Pennsylvania) are expected to be in operation in the United States by 1970.
- Since 1950, more than $5.2 million has been invested by heart associations in research at Pennsylvania medical centers.
- Philadelphia County Medical Society was the largest component unit of the State Society as of June, 1965, with 3,036 active members. Potter County, with 6 active members, was the smallest.

PMS Active Member Classifications for Dues Purposes Defined

THE STATE SOCIETY has some 11,000 active members. Here are the active member classifications for both PMS and American Medical Association dues purposes:

Active Member

Any doctor of medicine or holder of the degree of bachelor of medicine who is fully licensed to practice medicine in the commonwealth of Pennsylvania and is a member of a component society.

A VERY IMPORTANT DATE

■ PMS AND AMA membership assessments for 1966 must be paid by March 1, through the county medical societies. If no payment is made by that date, the member becomes delinquent, losing the rights and privileges of membership.

Dues: PMS, $75; AMA, $45 (AMA dues may be excused (1) by reason of financial hardship or illness, or (2) if member is retired from active practice.)

Benefits: All membership privileges, except that benefits for AMA dues-exempt membership are the same as senior (active member).

Senior Active Member

Any active member at least seventy years of age with at least twenty-five years continuous membership (membership in other societies may be included.)

Dues: PMS, $18.75 (25 percent of regular assessment); AMA, dues-exempt.

Benefits: PMS, all; AMA, all, except scientific publications, which are available to such members at one-half the regular subscription rate.

Resident Active Member

Any active member serving a hospital residency or other recognized full-time postgraduate training.

Dues: PMS, $7.50 (10 percent of regular assessment); AMA, dues-exempt.

Benefits: PMS, all; AMA, same as senior active member.

Military Active Member

Any active member serving temporarily in the armed forces.

Dues: PMS and AMA, dues-exempt.

Benefits: PMS, all AMA, same as senior active member.

Note: For information about affiliate and associate (permanent and temporary) memberships, contact the PMS, 230 State Street, Harrisburg, Pennsylvania 17105.

A.A. Most Effective Way to Treat Alcoholism, AMA Session Told

ALCOHOLICS ANONYMOUS membership still is the most effective means of curing alcoholism, but many other methods also should be used to treat this nation's five to six million alcoholics, the medical director of the National Council on Alcoholism, Inc., told the American Medical Association Convention in Philadelphia in November.

Ruth Fox, M.D., New York City, suggested that while the physician treats the patient, he should give some thought to treating the alcoholic's family, too.

"THE WIFE of an alcoholic," she said, "may seem on the surface to be just an innocent victim of her husband's drinking, but a number of studies have shown her to be often almost as neurotically ill as her husband."

Dr. Fox noted that treatment methods for alcoholism today range from psychiatric examination and counseling, to hypnosis, to use of the experimental drug LSD (lysergic acid diethylamide).

GROUP THERAPY "is perhaps the most effective type of treatment aside from A.A.," she said, adding that other efforts include psychoanalysis, psychodrama, treatment of families, and religious counseling. The drug Antabuse was described by Dr. Fox as another form of therapy helpful in deterring the drinking of the well-motivated, not-too-neurotic alcoholic.

FOR TV SERVICE—WFIL-TV General Manager Roger Clipp, right, accepts a special citation from Philadelphia physicians for the weekly public service program, *A Question for the Doctor*, presented by George P. Rosemond, M.D., left, president of the Philadelphia County Medical Society, and James B. Donaldson, M.D., chairman of the society's public relations committee and moderator of the TV series. The program has been aired by the channel 6 station for the past eighteen months.

AMA Affirms Statements on Fees for Service

■ The American Medical Association House of Delegates, meeting in Philadelphia November 28–December 1, approved eight statements on medical service fees charged by physicians. These are applicable "irrespective of whether such fees are paid by the patient, or paid or reimbursed in whole or in part under Public Law 89-97, or any other third party plan," the House stated. Here are the eight statements:

"1. The intimate relationship between physician and patient is served best without the interposition of any third party carrier, whether in the area of diagnosis and treatment or the payment for these services.

"2. It is the patient's responsibility to deal with third party carriers in the area of financial assistance, provided that the physician is at all times mindful of his obligations to the patient under Section 1 of the Principles of Medical Ethics.

"3. The physician-patient relationship is served best when there is an advance understanding regarding the payment of fees and the physician bills the patient directly for services rendered. However, the physician is ethically free to choose in each case the manner in which he is to be compensated, based upon the exercise of his independent judgment.

"4. The American Medical Association does not approve of any program which may directly or indirectly promote the charging of excessive fees or which interferes with the physician's right to charge fees commensurate with the services he renders.

"5. The American Medical Association opposes any program of dictation, interference, or coercion, whether direct or indirect, affecting the freedom of choice of the physician to determine for himself the extent and manner of participation or financial arrangement under which he shall provide medical care to patients under Public Law 89-97, or other third-party plans.

"6. It should be remembered that insurance does not create any new wealth. It merely assists in conservation. Insurance may conserve the ability of an insured person to fulfill his normal financial obligations. It does not enhance his ability to discharge added responsibilities if they are in the form of increased fees. To use insurance as an excuse to revise professional fees upward is but to contribute to the defeat of its purpose. If these indisputable and self-evident facts are not embraced by the entire membership of the profession, then it will have dealt irreparable harm to the whole movement. Also, any such failure might give impetus to whatever demand now exists for forcing rigid benefit schedules on the professional. (The foregoing is from a report of the Council on Medical Service to the House of Delegates at the Clinical Meeting in 1954.)

"7. The charging of an excessive fee is unethical and is contrary to Section 7 of the Principles of Medical Ethics. The physician's fee should be commensurate with the services rendered and the patient's ability to pay. (The foregoing is from a report of the Judicial Council which was approved by the House of Delegates at the Clinical Meeting in 1960.)

"8. It is not contrary to conscience for the physician to consider the patient's ability to pay if he fixes his particular fee within reasonable limits. In matters relating to fees, the physician should try, to the best of his ability, to insure justice to the patient and himself and respect for his profession. (The foregoing is from an opinion of the Judicial Council in 1958.)"

Two Future Physicians Clubs Activated; Now Four in State

TWO FUTURE physicians clubs were chartered last month, bringing the total for the state to four.

The clubs were organized at Camp Curtin Junior High School, Harrisburg, and Chambersburg Area Senior High School, according to Walter I. Buchert, M.D., chairman of the Advisory Committee on Medical Student Recruitment.

CLUBS HAD previously been organized in Reading and Philadelphia.

The Harrisburg club plans bi monthly meetings with films, tours of medical facilities, and talks by local physicians. Physicians of Cumberland County are helping shape the Chambersburg program.

SEVERAL other schools in the state are reported organizing similar clubs.

Best Year for PMS Placement Service

THE STATE SOCIETY Physician Placement Service in 1965 had its most successful year.

By mid-December, the service had assisted in placing eleven physicians in these nine communities: Berwick, Canonsburg, Ellwood City, Indiana, Lewistown, Somerset, Towanda, Tyrone, and York.

AMA Drafts Sample Agreement For Operation of Hospital Emergency Departments

A SAMPLE AGREEMENT for the operation of a hospital emergency department by a partnership of physicians on the medical staff has been prepared by the American Medical Association.

Developed by AMA's Law Department in cooperation with the Department of Hospitals and Medical Facilities, the sample contract was prepared in response to numerous requests for assistance from hospital medical staffs which have found it difficult to provide staffing through voluntary arrangements.

The sample agreement calls for the partnership to provide the services of a duly licensed physician in the emergency department on a continuous, uninterrupted basis, twenty-four hours each day, seven days each week.

RESPONSIBILITIES of the hospital to provide adequate space, equipment and supplies, maintenance, and nursing and other nonphysician services are set forth.

Members of the partnership and its physician-employees would be prohibited from maintaining a private office within a specified radius of the hospital, and from treating patients outside the hospital within this radius (except in emergencies).

Services rendered by the partnership would be limited to emergency treatment. Follow-up care would have to be referred to the patient's personal physician or, where the patient had none, to members of the attending staff, on a rotation basis.

PROCEDURES ARE established for the collection and remittance of all physician's fees in a manner consonant with generally accepted ethical principles.

Other matters treated in the sample agreement include: professional courtesy, medical records, ethics and standards, policies and procedures, and liability insurance.

Copies of the sample agreement are available from the Department of Hospitals and Medical Facilities, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.

✓ *MARK YOUR CALENDAR*

- 1966 PMS Officers' Conference, Penn Harris Hotel, Harrisburg, April 28-29
- Annual Convention, American Medical Association, Chicago, Illinois, June 26-30
- 1966 PMS Annual Session, Penn-Sheraton Hotel, Pittsburgh, October 11-14

Journal Editors Named

SIXTEEN physicians representing most of the specialties have agreed to serve again in 1966 as contributing editors of the PENNSYLVANIA MEDICAL JOURNAL.

The appointments, made by Carl B. Lechner, M.D., medical editor, will be submitted to the Publication Committee for confirmation this month.

REAPPOINTED contributing editors were Drs. Harry E. Bacon, William C. Beck, Walter I. Buchert, Lewis T. Buckman, A. Reynolds Crane, Garfield G. Duncan, George H. Fetterman, Wendell B. Gordon, Samuel B. Hadden, Jack D. Myers, Thomas F. Nealon, Jr., Eugene P. Pendergrass, Mary DeWitt Pettit, Sydney E. Sinclair, David A. Smith, and James R. Watson.

TIME FOR A CHANGE

- THE PENNSYLVANIA MEDICAL JOURNAL, praised last year by the House of Delegates for many recent "significant changes," will be further improved this year. A better "blend" of contents is planned, along with a number of graphic changes and a new name, "Pennsylvania Medicine." Watch for this entirely new approach in the publishing of a state medical journal. Coming . . . in March.

Benevolence Gifts Continue To Increase Fund Total

THE COMMITTEE on Medical Benevolence gratefully acknowledges contributions to the Medical Benevolence Fund totaling $353, bringing the cumulative total since January 1, 1965, to $8,536.56.

Benefactors to the fund during October were: Mrs. Edgar S. Buyers (in memory of Mrs. William G. Miller), the Pennsylvania Medical Society (in memory of William B. Patterson, M.D.), and the woman's auxiliaries of the following counties: Allegheny (two gifts—one in memory of Mrs. Oscar T. McDonough, Sr., the other in memory of Mrs. Robert J. Shoemaker); Clinton (in honor of Mrs. Lucian J. Fronduti); Huntingdon (two gifts—one in memory of Mrs. Paul Maxwell, the other in honor of Mrs. Fronduti); Indiana (in honor of Mrs. Fronduti); Lehigh (in memory of Mrs. J. Treichler Butz); and Lycoming (in honor of Mrs. Fronduti).

AMONG BENEFACTORS to the fund during November were: the Montgomery County Medical Society (in memory of Harold B. Shaw, M.D.), and the following county auxiliaries: Bedford (in honor of Mrs. Clarence J. McCullough), Bradford (in honor of Mrs. A. A. Berrettini), Lancaster (in memory of Tobias C. Shookers, M.D.), and Blair. Auxiliaries making November contributions honoring Mrs. Lucian J. Fronduti were: Bedford, Bradford, Mifflin-Juniata, Montour, Northumberland, and Washington.

WELCOME, NEW MEMBERS!

The following M.D.'s have joined the State Society in recent months:

ALLEGHENY COUNTY:

Richard L. Berkey, 364 Oakville Drive, 1-B., Pittsburgh 15220

Myron Caraiman, 1350 Sheridan Avenue, Pittsburgh 15206

Eugene T. Danko, 110 Eastern Avenue, Aspinwall, Pittsburgh 15215.

Stanley P. Dugan, 97 Fort Couch Road, Pittsburgh 15234

Elliott J. Goldstein, 4115 Bigelow Boulevard, Pittsburgh 15213

Marion Z. Goldstein, 4115 Bigelow Boulevard, Pittsburgh 15213

T. Terry Hayashi, 146 Woodshire Drive, Pittsburgh 15215.

Penn Lupovich, 1198 Beechwood Court, Pittsburgh 15206

Frederick J. Oddi, Golden Mile Professional Building, R.D. 1, Route 286, Pitcairn 15140.

Hugh A. Raphael, 3500 Fifth Avenue, Pittsburgh 15213

Edgar G. Sanner, Jr., 411 South Murtland Avenue, Pittsburgh 15208

George Stan, Jr., 3509 Fifth Avenue, Pittsburgh 15213

Renal L. Urban, 1442 Navahoe Drive, Pittsburgh 15228

Robert E. Weimer, Dixmont State Hospital, Glenfield 15115

Louis M. Winters, 4066 Penn Avenue, Pittsburgh 15201

Frederick P. Wucher, 118 Mayfair Drive, Pittsburgh 15228

ARMSTRONG COUNTY:

Kenneth R. Kost, 206 North Jefferson Street, Kittanning 16201.

BERKS COUNTY:

John H. Gallen, 2950 Van Reed Road, Wilshire, Sinking Spring 19680.

Carl W. Hassler, 701 Jefferson Boulevard, Reading 19609.

Harry S. Mackler, Hamburg State School and Hospital, Hamburg 19526.

E. James Morrissey, Jr., 1121 Penn Avenue, Wyomissing 19610.

BRADFORD COUNTY:

Olan D. Fear, Guthrie Clinic, Ltd., Sayre 18840

CENTRE COUNTY:

David R. Benson, 527 Willowbank Street, Bellefonte 16823.

John T. Fisher, 233 Easterly Parkway, State College 16801.

DAUPHIN COUNTY:

Richard D. Baltz, 1024 Swarthmore Road, New Cumberland 17070.

Howard C. Beane, 1629 North Second Street, Harrisburg 17102.

James M. Fox, 225 North Thirty-third Street, Camp Hill 17011.

John S. Tennant, Harrisburg Polyclinic Hospital, Harrisburg 17105.

Harry S. Whiting, 10 Oakmont Street, Harrisburg 17109.

Maurice L. Zeigler, Jr., Harrisburg Polyclinic Hospital, Harrisburg 17105.

DELAWARE COUNTY:

Carmela Koussis, 512 Collins Drive, Springfield 19064.

James M. Pedigo, 45 Copley Road, Upper Darby 19080.

Lowell D. Smalligan, 17 North Norwinden Drive, Springfield 19064.

ERIE COUNTY:

Thomas A. Gustin, 234 West Sixth Street, Erie 16507.

Howard L. Hudson, Jr., 2623 Green Garden Boulevard, Erie 16508.

FRANKLIN COUNTY:

Harrison M. Dickson, Professional Arts Building, Chambersburg 17201.

LACKAWANNA COUNTY:

Stanley W. Boland, 309 Brighton Drive, Clarks Green 18411.

Charles R. Druffner, 618 Main Street, Avoca 18641.

Frank A. Milani, 514 Scranton Life Building, Scranton 18503.

LANCASTER COUNTY:

Joseph A. Besecker, 444 North Lime Street, Lancaster 17602.

LAWRENCE COUNTY:

Galen M. Hover, Westminster College, New Wilmington 16142.

LUZERNE COUNTY:

George J. Racho, 127 West Noble Street, Hazleton 18201.

Leon Ross, Veterans Administration Hospital, 1111 East End Boulevard, Wilkes-Barre 18703

MERCER COUNTY:

Fernando Chaves, 1549 Catalina Drive, Sharpsville 16150

MONTGOMERY COUNTY:

Jan W. Doeff, 1115 Powell Street, Norristown 19401.
John L. Ickler, 1661 Susquehanna Road, Rydal 19046
Frank E. Kaplan, State Hospital, Norristown 19401.
Rostam S. Khorsandian, 1067 Forest Drive, Ancora Hospital, Hammonton, New Jersey 08037.
Robert E. Lynch, 1689 Thomas Road, Wayne 19087
Jose R. Lopez, 842 Skippack Pike, Blue Bell 19422.
Audrey G. Owen, Norristown State Hospital, Norristown 19401
Violeta T. Prats, 1758 Sterigere Street, Norristown 19104.
Edmund N. Pressman, 2991 School House Lane, P22W, Philadelphia 19144.
Charles L. Rojer, 2079-B South John Russell Circle, Elkins Park 19117.
Robert L. Sadoff, Suite 222-A, Benson East, Jenkintown 19046

PHILADELPHIA COUNTY:

Antonio Barrios, 256 South Forty-fourth Street, Philadelphia 19104.
Irwin Becker, 1913 Olney Avenue, Philadelphia 19141.
Roy G. Clouse, 516 West Erie Avenue, Philadelphia 19140.
Herbert E. Cohen, 230 North Broad Street, Philadelphia 19102
Leroy T. Gerson, 1900 John F. Kennedy Boulevard, 507, Philadelphia 19103
Stanley L. Goodwin, 438 North Bowman Avenue, Merion Station 19066.
Robert P. Kamrin, 1930 Chestnut Street, Philadelphia 19103.
Alphonse Laforest, 6932 Forrest Avenue, Philadelphia 19138.
C. Dickson McKeever, Pennsylvania State Hospital, Elizabethtown 17022.
Robert H. MacWilliams, 9436 Lansford Street, Philadelphia 19114.
David Naide, 815 Maloney Building, University of Pennsylvania Hospital, Philadelphia 19104.
William P. Maier, 3401 North Broad Street, Philadelphia 19140.
Esmond M. Mapp, Woman's Medical College, Philadelphia 19120.
Richard H. Saunders, Jr., 133 South Thirty-sixth Street, Philadelphia 19104.
Laurence H. Snow, 846 Waverly Road, Bryn Mawr 19010.
James A. Whelton, Temple University School of Medicine, Philadelphia 19140
Carol D. Witherspoon, Franklin Park Apartments, 37-A, Philadelphia 19138.
Sylvia Yedinsky, 1420 Remington Road, Philadelphia 19151.

VENANGO COUNTY:

Donald E. Sloan, Franklin Hospital, Franklin 16323

WARREN COUNTY:

David B. Regan, Warren State Hospital, Warren 16365

PMS Set to Recognize Medical Reporting with Three Awards

THE STATE Society Donaldson Awards program has been launched, to recognize "outstanding reporting in the field of medicine and health" in Pennsylvania last year.

Notices about the program have been sent to newspaper and trade publication editors and to television and radio station general managers. The deadline for entries is March 1.

FOR THE SECOND year, three separate awards will be given, one each for the press, for radio, and for television.

The competition is named in memory of Walter F. Donaldson, M.D., former secretary of the PMS and for many years editor of the PENNSYLVANIA MEDICAL JOURNAL.

Do You Know Anyone Who Was Born in 1866?

SOMEWHERE in your county there may be a man or woman who will pass the century mark this year. The State Society, continuing a tradition which in the past seventeen years has honored 905 Pennsylvania centenarians, is asking for the names of any "eligibles" for this year's awards.

During 1965, three one-hundred-year-old guests in a Greene County nursing home received the hand-lettered, framed testimonials. A woman in Pittsburgh and one in Philadelphia each won recognition, albeit a bit belatedly: they had chalked up 105 years apiece.

Usually the medical society of the county in which the centenarian lives, presents the award. If you know of anyone qualifying for it, get in touch with the PMS, 230 State Street, Harrisburg 17105.

"All Interns are Alike"

It stands to reason. They all go through the same training; they all have to pass the same tests; they all have to measure up to the same standards; they all are underpaid, too. Therefore, all interns are alike.

That's utter nonsense, of course. But it's no more nonsensical than what some people say about aspirin. Namely: since all aspirin is at least supposed to come up to certain required standards, then all aspirin tablets must be alike.

Bayer's standards are far more demanding. In fact, there are at least *nine specific differences* involving purity, potency and speed of tablet disintegration. These Bayer® standards result in significant product benefits including gentleness to the stomach, and product stability that enables Bayer tablets to *stay* strong and gentle until they are taken.

So next time you hear someone say that all aspirin tablets are alike, you can say, with confidence, that it just isn't so.

You might also say that all interns aren't alike, either.

An eminent role in medical practice

- Clinicians throughout the world consider meprobamate a therapeutic standard in the management of anxiety and tension.
- The high safety-efficacy ratio of 'Miltown' has been demonstrated by more than a decade of clinical use.

Miltown®
(meprobamate)

Indications: 'Miltown' (meprobamate) is effective in relief of anxiety and tension states. Also as adjunctive therapy when anxiety may be a causative or otherwise disturbing factor. Although not a hypnotic, 'Miltown' fosters normal sleep through both its anti-anxiety and muscle-relaxant properties.

Contraindications: Previous allergic or idiosyncratic reactions to meprobamate or meprobamate-containing drugs.

Precautions: Careful supervision of dose and amounts prescribed is advised. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction; withdraw gradually after use for weeks or months at excessive dosage. Abrupt withdrawal may precipitate recurrence of pre-existing symptoms, or withdrawal reactions including, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, the dose should be reduced and operation of motor vehicles or machinery or other activity requiring alertness should be avoided if these symptoms are present. Effects of excessive alcohol may possibly be increased by meprobamate. Grand mal seizures may be precipitated in persons suffering from both grand and petit mal. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side effects: Drowsiness may occur and, rarely, ataxia, usually controlled by decreasing the dose. Allergic or idiosyncratic reactions are rare, generally developing after one to four doses. Mild reactions are characterized by an urticarial or erythematous, maculopapular rash. Acute nonthrombocytopenic purpura with peripheral edema and fever, transient leukopenia, and a single case of fatal bullous dermatitis after administration of meprobamate and prednisolone have been reported. More severe and very rare cases of hypersensitivity may produce fever, chills, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, anaphylaxis, stomatitis and proctitis. Treatment should be symptomatic in such cases, and the drug should not be reinstituted. Isolated cases of agranulocytosis, thrombocytopenic purpura, and a single fatal instance of aplastic anemia have been reported, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity has been reported, usually after excessive meprobamate dosage. Suicidal attempts may produce lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

Usual adult dosage: One or two 400 mg. tablets three times daily. Doses above 2400 mg. daily are not recommended.

Supplied: In two strengths: 400 mg. scored tablets and 200 mg. coated tablets.

Before prescribing, consult package circular.

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M.D. Hobbies...

FROM PHILADELPHIA to the Philippines to teach plastic surgery is a pattern familiar to Alma Dea Morani, M.D., whose journeys to the Far East have included India, Cambodia, Thailand, Burma, and Taiwan, in the interest of demonstrating and performing plastic surgery—a field in which she is acknowledged to be one of the world's outstanding practitioners.

Dr. Morani, professor of clinical surgery at the Woman's Medical College of Pennsylvania, is one of only thirty-six women plastic surgeons in the world; she was the first woman to study and teach plastic surgery, and the first woman member of the American Society of Plastic and Reconstructive Surgery.

CONCENTRATING PARTICULARLY on hand surgery, surgery involving congenital or acquired deformities, and repair of facial damage caused by accident, Dr. Morani received the 1964 achievement award of the alumnae association of her alma mater, the Woman's Medical College of Pennsylvania, and also has been honored with an affiliate membership in the Royal Society of Medicine in England.

Occupied as she is with teaching and practicing plastic surgery, Dr. Morani devotes limited hours to sculpture, an art form to which her father, Salvatore Morani, was professionally dedicated. Dr. Morani, who has been awarded prizes for her sculpture, was the first woman president of the American Physicians Art Association, comprised of physicians throughout the United States who engage in art as a hobby.

PHOTOGRAPHY is another avocation for Dr. Morani. At the 1965 Annual Session of the Pennsylvania Medical Society at Atlantic City last September, she won first prize for black-and-white photography in the exhibition of the Pennsylvania Physicians Art Association.

Now on exhibition in the headquarters building of the Pennsylvania Medical Society in Harrisburg are photographs in color taken by Dr. Morani, including the famous sitting Buddha in Bangkok's Temple of the Dawn, and groups of saffron-robed Buddhist monks strolling about the ruins of the ancient Angkor Wat in Cambodia.

DR. MORANI is now in the Far East, teaching plastic surgery for a month in Manila, then to make a visit to Taiwan where on a former trip she lectured at the National Defense Medical Center on invitation from the National Chinese Government, and also before the Chinese Medical Women's Association Clinic in Taipei. Many of the women doctors who attended Dr. Morani's lectures and clinical demonstrations in the Far East are graduates of the Woman's Medical College of Pennsylvania.

And it is likely that while she is in Taiwan, Dr. Morani will visit with her friend of many years, Madame Chiang Kai-shek, and they will discuss matters medical and artistic; both have art as a hobby.—R. J.

one mid-morning

New 300mg tablet

For Adults–2 tablets provide a full 24 hours of therapy...with all the extra benefits of DECLOMYCIN...lower mg intake per day... proven potency...1-2 days' "extra" activity to protect against relapse or secondary infection.

one mid-evening

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300 mg FILM COATED TABLETS

Effective in a wide range of everyday infections—respiratory, urinary tract and others—in the young and aged—the acutely or chronically ill—when the offending organisms are tetracycline-sensitive.

Side effects typical of tetracyclines include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis, dermatitis, overgrowth of nonsusceptible organisms, tooth discoloration (if given during tooth formation) and increased intracranial pressure (in young infants). Also, very rarely, anaphylactoid reaction. Reduce dosage in impaired renal function. Because of reactions to artificial or natural sunlight (even from short exposure and at low dosage), patient should be warned to avoid direct exposure. Stop drug immediately at the first sign of adverse reaction. It should not be taken with high calcium drugs or food; and should not be taken less than one hour before, or two hours after meals.

Tablets: 300 mg of demethylchlortetracycline HCl.

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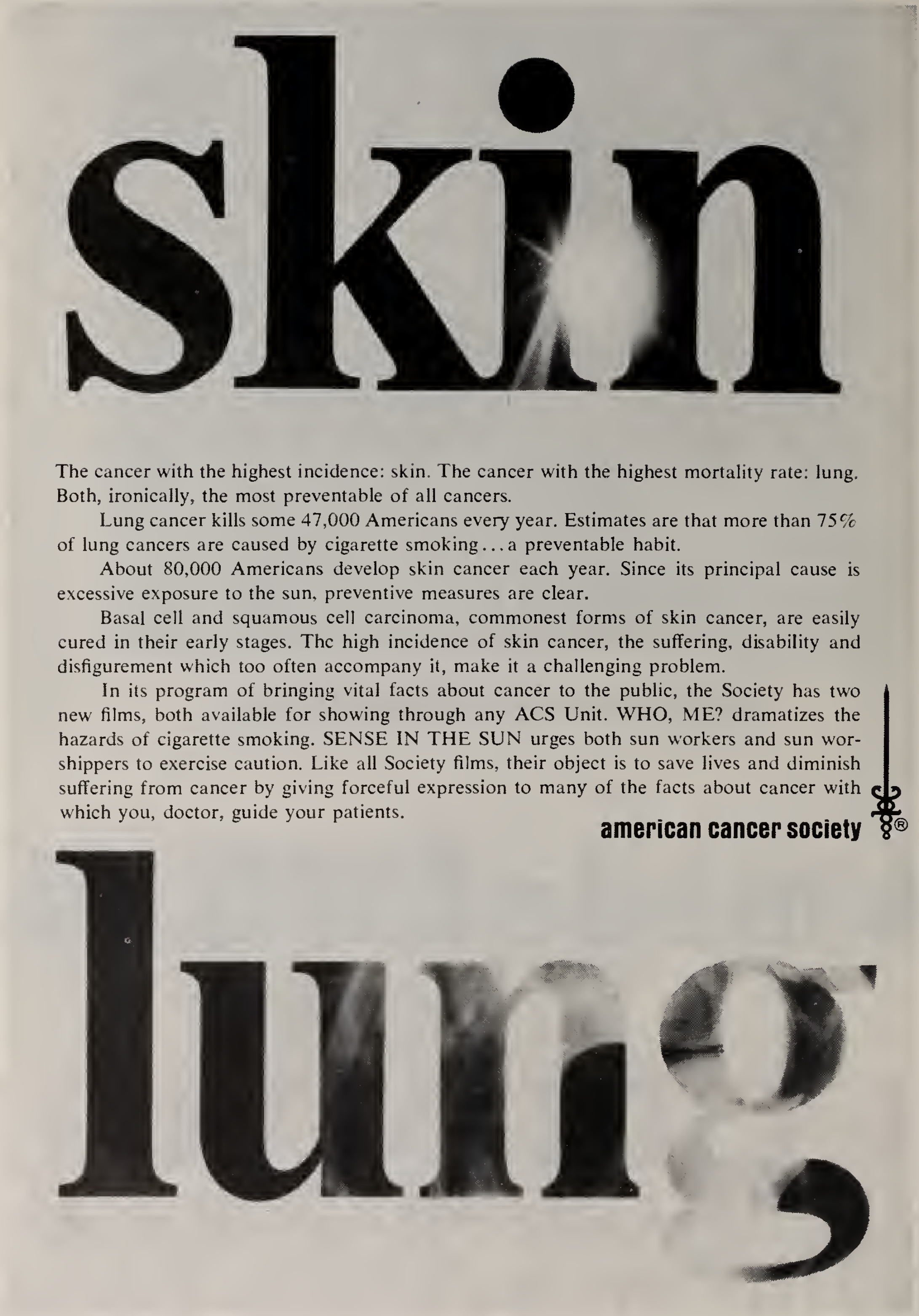
CANCER FORUM PAGE



The cancer with the highest incidence: skin. The cancer with the highest mortality rate: lung. Both, ironically, the most preventable of all cancers.

Lung cancer kills some 47,000 Americans every year. Estimates are that more than 75% of lung cancers are caused by cigarette smoking . . . a preventable habit.

About 80,000 Americans develop skin cancer each year. Since its principal cause is excessive exposure to the sun, preventive measures are clear.

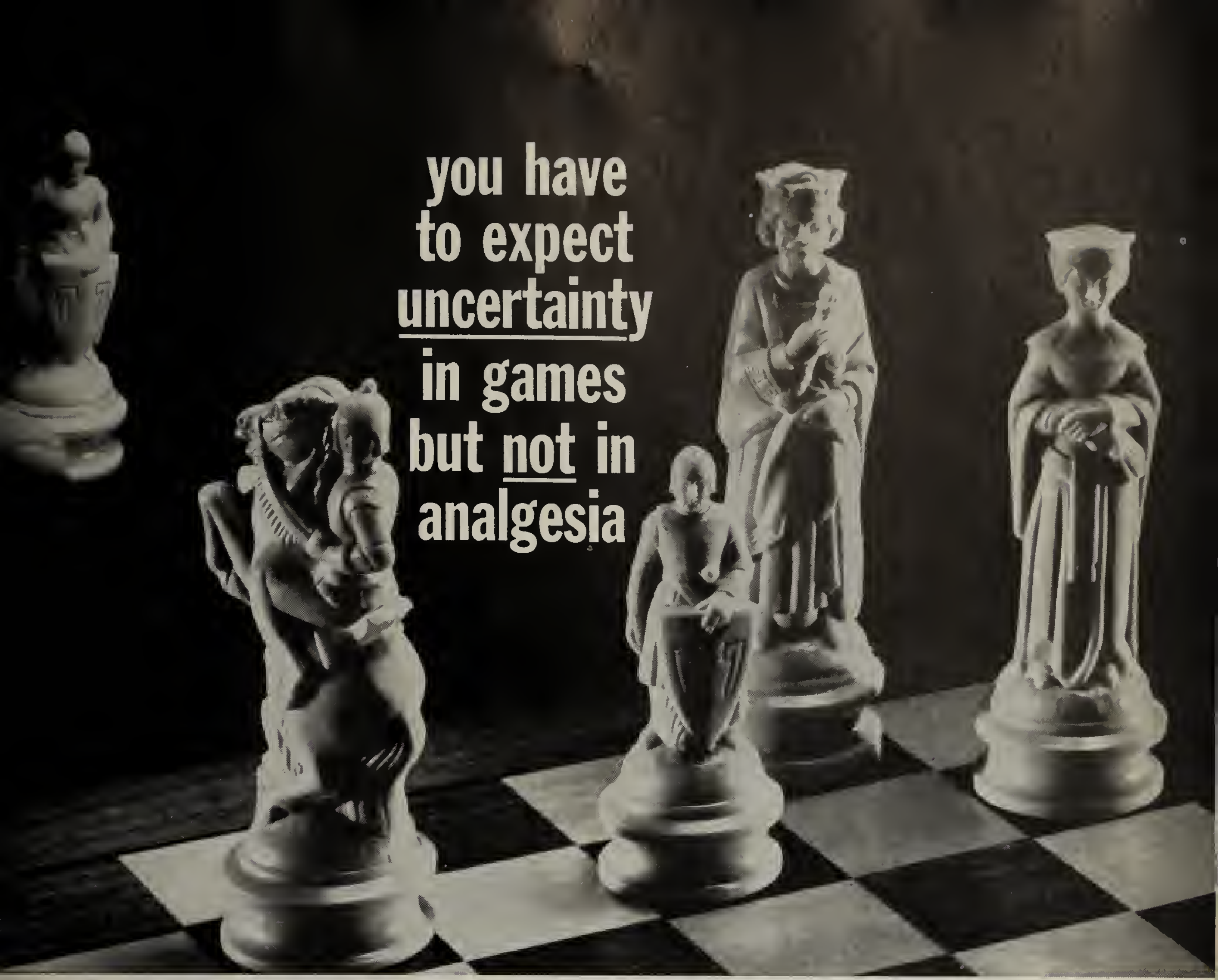
Basal cell and squamous cell carcinoma, commonest forms of skin cancer, are easily cured in their early stages. The high incidence of skin cancer, the suffering, disability and disfigurement which too often accompany it, make it a challenging problem.

In its program of bringing vital facts about cancer to the public, the Society has two new films, both available for showing through any ACS Unit. WHO, ME? dramatizes the hazards of cigarette smoking. SENSE IN THE SUN urges both sun workers and sun worshippers to exercise caution. Like all Society films, their object is to save lives and diminish suffering from cancer by giving forceful expression to many of the facts about cancer with which you, doctor, guide your patients.

american cancer society ®

PENNSYLVANIA DIVISION PHILADELPHIA DIVISION

PENNSYLVANIA CANCER FORUM PAGE—presented cooperatively by the Council on Scientific Advancement of the Pennsylvania Medical Society, the Philadelphia and Pennsylvania Divisions of the American Cancer Society, and the Cancer Control Section, Pennsylvania Department of Health.



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*U.S. Pats. 2,628,185 and 2,907,768

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at Merck Sharp & Dohme...

understanding... precedes development

The development of chlorothiazide and probenecid were events of major importance, but perhaps even more important for the future was the Renal Research Program by which they were developed. When Merck Sharp & Dohme organized this program in 1943, it was expressing in action some of its basic beliefs about research:

- Many problems connected with renal structure and function were still undefined or unsolved. The Renal Research Program would begin its basic research in some of these problem areas.
- From knowledge thus acquired might come clues to the development of new therapeutic agents of significant value to the physician.

For example, the Renal Research Program put fifteen years into this search before chlorothiazide became available. But because these years had first led to a greater understanding of basic problems, the desired criteria for chlorothiazide existed before the drug was developed.

Along with other research teams at Merck Sharp & Dohme, the Renal Research Program continues to add new understanding of basic problems—understanding which will lead to important new therapeutic agents.

MSD MERCK SHARP & DOHME Division of Merck & Co., Inc., West Point, Pa.

where today's theory is tomorrow's therapy

PHS Plugs Automated Diagnosing

THE PUBLIC Health Service, in a news release, cited automation as a "proved and available means" for raising the level of medical care.

"Full application of automated procedures—validated by a five-year program of PHS development —can relieve the practicing physician of much of the routine drudgery which necessarily precedes final diagnosis and treatment," the PHS said.

THE MODEL for this automation is a system used for diagnosing heart disease and common types of lung disease, the PHS noted.

"The model system is now ready," the PHS said, "for immediate and broader use in hospitals and community screening programs.

"A further goal is to extend the system to physicians in private practice as quickly as possible."

Ipecac Syrup Made Nonprescription Item

IPECAC SYRUP may be sold without prescription, making it readily available for first aid use (under medical supervision), to induce vomiting in certain kinds of poisoning, Joseph F. Sadusk, Jr., M.D., medical director of the Food and Drug Administration, announced.

Dr. Sadusk said the labeling change on very small containers of the syrup follows recommendations by a number of national medical organizations.

THE FDA ALSO announced that drug preparations containing meclizine, cyclizine, and chlorcyclizine will be relabeled to warn against use without medical advice by pregnant women or those who may become pregnant.

Clean Streams Air Patrol

THE STATE Department of Health has added an airplane to its arsenal for the war on stream pollution. Initial experimental flights, viewed as highly successful, have helped detect previously unfound pollution discharges and have increased surveillance throughout the state, particularly in areas inaccessible by other means.

DRUG AND PRODUCT NEWS

DOPRAM INJECTABLE (doxapram hydrochloride), A. H. Robins. A respiratory stimulant.

TRIAVIL (perphenazine and amitriptyline hydrochloride), Merck Sharp and Dohme. A broad-spectrum psychotherapeutic agent for the management of moderate to severe anxiety and depression.

Trivalent Sabin Oral Polio Vaccine, Charles Pfizer and Company, Inc. Combines in a single dose types I, II, and III of polio virus vaccine.

DAC System Products (Talseco, sodium secobarbital capsules; Talpento, sodium pentobarbital capsules; Talama, sodium amobarbital capsules; Talpheno, phenobarbital sodium injection), The William S. Merrell Company. The new additions expand the DAC System of single-dose medications to include the most frequently used narcotic and barbiturate preparations.

LABSTIX Reagent Strips, Ames Company. Colorimetric "dip-and-read" five-way plastic strip test for urinary pH, glucose, protein, occult blood, and ketones.

Cream and Ointment Cordran (flurandrenolone), Eli Lilly and Company. Two half-strength preparations of Lilly's topical steroid, Cordran.

Safety, Efficacy of 'The Pill' Studied

AN ADVISORY committee of medical experts formed by the Food and Drug Administration is scheduled to report on the safety and efficacy of the oral contraceptive drugs sometime after March.

The FDA, in a news release, said the committee finds no need for immediate action on recent reports of adverse experience with the pills. But the committee endorsed action requiring a warning on neuro-ocular manifestations, in the labeling of all oral contraceptive agents now on the market.

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FOUNDED 1825: A chartered university since 1838. Coeducational. 1961. Graduates 20,524.

FACILITIES: Modern well-equipped laboratories; Curtis Clinic; Daniel Baugh Institute of Anatomy; Jefferson Hospital and Barton Memorial Division of the Chest; the Lovelace Foundation; teaching museums and free libraries; instruction privileges in sixteen other hospitals.

ADMISSION: For full particulars regarding admission requirements write to the Office of the Dean, 1025 Walnut St., Philadelphia, Pa. 19107.

WILLIAM A. SODEMAN, M.D., *Dean and Vice President for Medical Affairs*

This non-profit $2 million center offers your patients all three kinds of nursing care

The 90-bed Meadow Lakes Nursing Care Center in Hightstown, New Jersey (near Princeton), provides the most comprehensive residential, convalescent and rehabilitative nursing care available anywhere—combined with modern facilities and professional services ordinarily associated only with hospitals.

- Patients cared for by a staff of 38 Registered Nurses and experienced, carefully-screened nurses aides. RNs supervise patient care 24 hours a day.
- Medical facilities include x-ray, dental, examination, laboratory and testing equipment and rooms, pharmacy, supervised bathing rooms — and fully-equipped Department of Physical Rehabilitation (diathermy, hydrotherapy, massage) under direction of licensed Physical Therapist.
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- Activities offered in 4 large solariums and day rooms (2 also used as dining areas). Nurses and visiting Junior Volunteers help keep patients occupied and interested. Recreational and special services of Meadow Lakes Village are available.

For more information, write or call Ellis G. Willard, Executive Director, (609) 448-4100.

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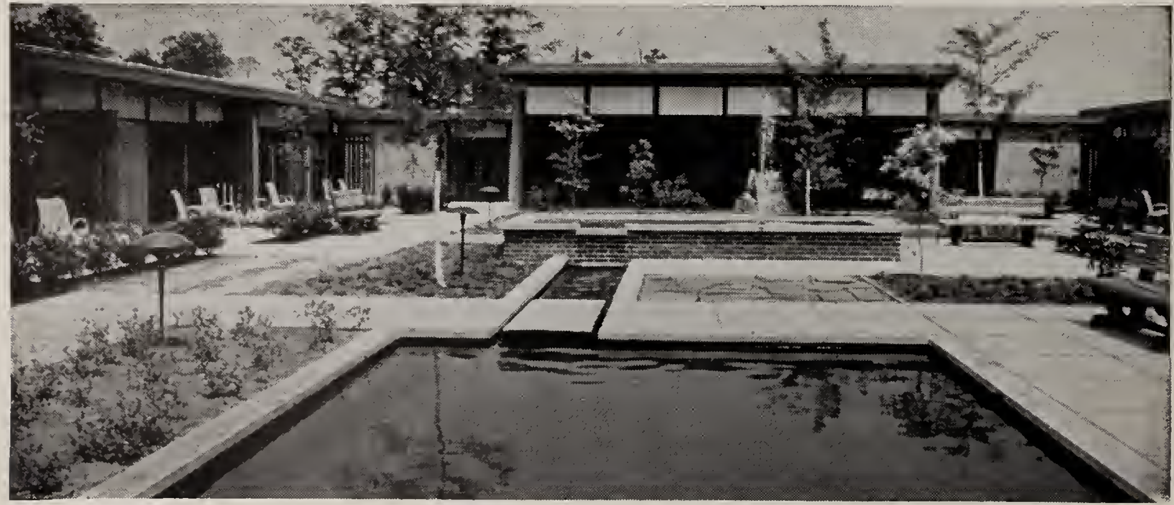

The tell-tale lesion on the back of her neck

ARISTOCORT Topicals are particularly effective in controlling the inflammatory symptoms of many dermatoses including neurodermatitis, atopic dermatitis, eczematous dermatitis, seborrheic dermatitis and certain cases of psoriasis. The 0.1% Cream or Ointment is usually effective in abating symptoms of skin conditions responsive to topical triamcinolone, but the 0.5% Cream may be preferable in more resistant cases. *Dosage:* Apply small quantity to area 3 or 4 times daily. Side effects are rare. *Contraindications:* tuberculosis of the skin, herpes simplex, chickenpox, and vaccinia. Use with care on infected areas. Do not use in the eyes. Supplied in 5 and 15 Gm. tubes and ½ lb. jars. Also available in foam form and with Neomycin.

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DEATHS

○ INDICATES CURRENT MEMBERSHIP IN COUNTY MEDICAL SOCIETY, THE PENNSYLVANIA MEDICAL SOCIETY, AND THE AMERICAN MEDICAL ASSOCIATION.

○ **Foster A. Beck**, Bristol, formerly of Allentown; University of Maryland School of Medicine, 1916, and Johns Hopkins Medical School; age, 77; died September 27, 1965. His survivors include a daughter, a son, a sister, and a brother.

David C. Cannon, Philadelphia; Hahnemann Medical College, 1930; age, 65; died July 2, 1965. Dr. Cannon is survived by his wife.

Herbert J. Cherry, Lancaster; Northwestern University Medical School, 1902; age, 87; died July 19, 1965.

○ **Joseph C. Donnelly**, Wynnewood; Temple University School of Medicine, 1924; age, 72; died September 28, 1965. Dr. Donnelly was a member of the College of Physicians of Philadelphia. He is survived by his wife, two daughters, and a son, Joseph C. Donnelly, Jr., M.D.

○ **Charles M. Gallagher**, Ashley; Jefferson Medical College, 1902; age, 64; died May 19, 1965. His wife, a daughter, and two sons survive.

○ **Malcolm Z. Gearhart**, Wyomissing; Jefferson Medical College, 1905; age, 85; died October 15, 1965. Dr. Gearhart, well known professionally in Pottstown as well as in Reading, practiced for 55 years in the latter city. He was a Fellow of the International College of Surgeons and belonged to many other medical organizations and to Masonic orders. Among his survivors are his wife, a daughter, and two sons.

○ **David N. Greenwood**, Cheltenham; Temple University School of Medicine, 1935; age, 56; died October 1, 1965. He was a member of the American Physicians' Fellowship for the Israel Medical Association, and was a Fellow of the International College of Surgeons. He is survived by his wife, a daughter, a son, and two sisters.

Frank J. Heisler, New Britain, formerly of Philadelphia; Jefferson Medical College, 1903; age, 83; died October 21, 1965. Dr. Heisler was the only surviving member of his medical school class. He was at one time medical chief of the former North Penn Hospital. In 1953, his medical alma mater honored him for his half-century of general practice. He is survived by his wife and two sons.

○ **Guy T. Holcombe**, Oxford; Medico-Chirurgical College, 1911; age, 76; died October 1, 1965. Widely known and respected professionally, Dr. Holcombe was also familiar to thousands by virtue of his civic activities, having served as burgess of Oxford for many years, and as a member of the governing boards of several institutions. He was a life member of the Coatesville Elks club, and belonged to Masonic orders. His survivors include his wife, a daughter, and a sister.

○ **William A. Jeffers**, Rosemont, formerly of Wynnewood and Philadelphia; University of Pennsylvania School of Medicine, 1932; age, 56; died September 29, 1965. An associate professor of medicine at his medical alma mater, and scientific director and executive officer of the Life Insurance Medical Research Fund, Dr. Jeffers was an authority on the treatment of hypertension. The author of *Will My Heart Fail?*, he was a Fellow of the American College of Physicians and belonged to the American Heart Association and to the College of Physicians of Philadelphia. Surviving are his wife, two daughters, a son, and a sister.

○ **Alfred F. Kamens**, Pittsburgh; University of Pittsburgh School of Medicine, 1916; age, 73; died October 1, 1965. Dr. Kamens, a staff member at Montefiore Hospital, belonged to Phi Delta Epsilon and Masonic groups. He is survived by his wife and a brother.

John B. Lark, Shamokin; Medico-Chirurgical College, 1905; age, 88; died September 29, 1965. Dr. Lark, who for several years taught school at Gowen City, had practiced medicine in Trevorton and in Girardville early in his professional life. He was a member of the Independent Order of Odd Fellows. Among his survivors are a daughter and a son.

○ **Nathaniel V. Ludwick**, Lansdowne; Hahnemann Medical College, 1926; age, 65; died September 30, 1965. Dr. Ludwick had devoted his entire professional life to his medical alma mater. Appointed to its faculty in 1928, he rose to the rank of professor of radiology, and from 1942 through 1959, headed the department of therapeutic radiology, establishing one of the nation's first tumor clinics. From 1943 until ill health forced his retirement in 1963, he was chairman of the admissions committee of the medical college. Upon retirement, he was named emeritus professor of radiology. His academic alma mater, Elizabethtown College, in 1950 awarded him an honorary Doctor of Science degree. Dr. Ludwick belonged to many professional organizations. He is survived by a sister.

Mary McQuaker, Gettysburg; Faculty of Medicine, University of Glasgow, Scotland, 1922; age, 67; died October 12, 1965. Dr. McQuaker was an anesthesiologist at a hospital in Tulsa, Oklahoma, until her retirement in 1946. There are no known survivors.

○ **Thomas Parke**, Downingtown; University of Pennsylvania School of Medicine, 1928; age, 64; died October 18, 1965. Dr. Parke was a medical staff member at Chester County Hospital, West Chester. Surviving are his wife, three daughters, and a son.

Henry L. Shemanski, Nanticoke; Jefferson Medical College, 1930; age, 64; died October 10, 1965. Dr. Shemanski, a staff member at Nanticoke State and Retreat State hospitals, was formerly a member of the PMS and the AMA. Surviving are his wife, a daughter, two sons, three sisters, and two brothers, one of whom is Clem J. Shemanski, M.D.

How Clean Is Your Patient's Hospital Room?

HOW LONG since you've looked at the floor beneath your patient's hospital bed? How long since you've inspected the cleanliness of his bathroom? Have you ever? Try it and see how it rates in comparison with one in your own home. Chances are in all too many institutions there's room for great improvement.

Institutional housekeeping departments have difficulty in securing adequate help. Those employed receive lamentably low wages, yet appear capable and willing to do fairly good work. Then why don't they?

THE PROBLEM appears to spring from four sources:

1. Personnel are inadequately trained.
2. Consistent supervision is lacking.
3. Adequate wages are not available for "skilled" help.
4. Few hospitals, with the exception of military institutions, have frequent, unscheduled checks for cleanliness.

All patients, and especially surgical patients, deserve to be surrounded by the highest degree of cleanliness, not only of linen but also of floors, furniture, and implements. Though it is true that the raw material handed to the chief housekeeper may leave much to be desired we, as physicians, must insist that she ask the utmost of these employees. She and her staff must train and supervise them rigidly, every day and all day. They in turn will gain a feeling of accomplishment when they realize that they are doing an essential job and are doing it well. Instruction in the importance of cleanliness for the successful recuperation of a patient will do much to heighten the stature of the employees' work.

IT IS THE PHYSICIANS who must see that their patients are surrounded by the best conditions. This cannot be left on the shoulders of the housekeeper or the director of the institution. A physician of the staff should be appointed to make unscheduled rounds once or twice a week. Spot checks should include laboratories, patients' rooms, hospitality shops, kitchens, and even storerooms. No operating room can hope to be clean if a bevy of microorganisms are having their annual convention in Room 708 on the floor below.

Let's take a lesson from the military. Let's demand the ultimate in cleanliness throughout our hospitals and be responsible for seeing that our requests are carried out.—BARBARA CHRISTINE, M.D., *Journal of the American Medical Women's Association,* October, 1965.

★

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Contraindicated in comatose or greatly depressed states due to CNS depressants and in cases of existing blood dyscrasias, bone marrow depression and pre-existing liver damage. *Principal side effects,* usually dose-related, may include mild skin reaction, dry mouth, insomnia, fatigue, drowsiness, dizziness and neuromuscular (extrapyramidal) reactions. Muscular weakness, anorexia, rash, lactation and blurred vision may also be observed. Blood dyscrasias and jaundice have been extremely rare. Use with caution in patients with impaired cardiovascular systems.

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Wanted—Associate for orthopedic practice in southwestern Pennsylvania. Satisfactory arrangements can be made with interested physician. Write Department 420, PENNSYLVANIA MEDICAL JOURNAL.

Staff Additions—Four staff additions to southern California group of twenty-four physicians: internist with chest sub-specialty, ophthalmologist, otolaryngologist, general practitioner. Partnership possibility after first year. Write ADMINISTRATOR, Gallatin Medical Group, 10720 South Paramount Boulevard, Downey, California 90241.

FOR RENT

Available—Suite of seven rooms, one thousand square feet, first floor; separate entrance, in new medical building. Ample storage and parking. Suburban Harrisburg, Pennsylvania. Ideal for one or two physicians. LOCUST LANE MEDICAL CENTER, Harrisburg, Pa. 17109. Phone (717) 545-4201.

FOR SALE

For Sale—Tice *Practice of Medicine*—fourteen volumes and index loose-leaf edition. Excellent filler. Good condition. CHARLES B. DAUGHERTY, M.D., 603 Clay Avenue, Jeannette, Pa. 15644.

For Sale—Picker Century x-ray unit and all developing equipment: tanks, drying racks, cassettes, complete. Excellent condition (like new). M. B. BECKMAN, 15 Gould Place, Caldwell, N.J. 07006.

Available—Eye, ear, nose, and throat equipment for sale, due to recent death. Central Pennsylvania location; offices established in residence for 34 years. Near accredited modern hospital. MRS. HARRY G. SHAFFER, 225 Cherry Street, Clearfield, Pa. 16830. Phone 765-4313.

INTERNS AND RESIDENTS WANTED

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Neurology Residents—Neurology residency positions immediately available in an 85-bed neurology center affiliated with Jefferson Medical College and Hospital, with two years' training at Veterans Administration Hospital, Coatesville, Pennsylvania, and one year at Jefferson. Salary for regular resident—$4,325-$6,035; career resident—$8,650-$12,075. Average 500 admissions annually, with neurosurgery included. Full range of clinical material. Excellent instruction in basic sciences. Research encouraged. Must be United States citizen with license in any state, or, if a first-year applicant, must be eligible for licensure. Nondiscrimination in employment. Write HOSPITAL DIRECTOR, Veterans Administration Hospital, Coatesville, Pa. 19320.

PHYSICIANS WANTED

House Physician—Needed immediately for 270-bed general hospital serving suburban and industrial communities in Pittsburgh metropolitan area. A license in Pennsylvania is required for this position. Salary open. Contact ASSISTANT EXECUTIVE DIRECTOR, Sewickley Valley Hospital, Sewickley, Pa. 15143.

Occupational Health Physician—Pennsylvania State Department of Health. Challenging opportunity to work in occupational disease prevention program in connection with which, incumbent will visit industries, hospitals, and clinics, and make recommendations to improve health conditions. Salary range, $12,075–$16,170, commensurate with training and experience. Requires Pennsylvania medical licensure or eligibility and one year's experience in occupational health or related fields. Merit system, retirement plan, Social Security, 15 days' paid vacation, 15 days' sick leave, 13 paid holidays. For further information and applications, please write JAN LIEBEN, M.D., Director, Division of Occupational Health, Pennsylvania Department of Health, P.O. Box 90, Harrisburg, Pa. 17108.

Mayview State Hospital—Clinical directorships and staff psychiatrists' positions immediately available at all levels. Progressive teaching hospital with intensive, comprehensive, and dynamically-oriented treatment facilities and an active psychiatric residency program, in affiliation with the University of Pittsburgh. Salary ranges from $12,675 to $19,664. Write SUPERINTENDENT, Mayview State Hospital, Bridgeville, Pa. 15017.

Medical Director Wanted—For outpatient rehabilitation center; physiatrist—qualified, or board certified. Must have New York State license. Salary $20,000 and up (depending upon qualifications), plus liberal fringe benefits. Write Department 434, PENNSYLVANIA MEDICAL JOURNAL.

Wanted—House physician for 206-bed general hospital located in a pleasant college community 55 miles from Pittsburgh. Rotate services with another house physician. Pennsylvania license required.

An excellent introduction to a community with practice opportunities. Contact WILLIAM PETERS, Administrator, Indiana Hospital, Indiana, Pa. 15701.

Industrial Physician—Philadelphia-based company has an immediate opening in its medical department in eastern Pennsylvania, on a full-time basis. Salary plus fringe benefits. Pleasant work and surroundings. Excellent opportunity. For full details, submit qualifications to Department 440, PENNSYLVANIA MEDICAL JOURNAL.

Physician for Railroad—The Reading Railroad has an immediate opening for a full-time physician in its medical department at Reading, Pennsylvania. The work involves all facets of medicine. For information and interviews, contact MORTON M. MEDVENE, M.D., Room 350, Reading Terminal, Philadelphia, Pa. 19107.

Excellent Opportunity—General practitioner needed in Catawissa. Office and records of previous physician (deceased) available. Office offered at reasonable rental. Drugstore in town. Hospital within four miles. Presence of two other physicians in town allows for mutual coverage arrangements. The Keystone Shortway, when completed, will put Catawissa within three hours of New York. Contact HERBERT MAURER, Chamber of Commerce, Catawissa, or PHYSICIAN PLACEMENT SERVICE, Pennsylvania Medical Society, 230 State Street, Harrisburg, Pa. 17105.

Surgical House Officer—For an accredited active cancer hospital with complete surgical and radiation facilities, located in center city. Pennsylvania license required. Salary open. Write ADMINISTRATOR, American Oncologic Hospital, 33rd and Powelton Avenue, Philadelphia, Pa. 19104.

Full-time Position—For a Pennsylvania-licensed internist with special reference to cardiovascular diseases, in 72-bed hospital. Please reply to JOSEPH B. WOLFFE, M.D., Medical Director, Valley Forge Medical Center and Heart Hospital, Germantown Pike, Norristown, Pa. 19434.

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Internist—Board eligible internist willing to join a group or association in Philadelphia area. Department 443, PENNSYLVANIA MEDICAL JOURNAL.

Obstetrician-Gynecologist—Age thirty, married, board eligible, military obligation completed, seeking association in Philadelphia-Camden area. Write Department 442, PENNSYLVANIA MEDICAL JOURNAL.

Internist—Hematologist, five years' training, board certified, age, thirty-three, married, military service completed; seeks position with future, within reasonable distance of academic center. Write Department 439, PENNSYLVANIA MEDICAL JOURNAL.

Obstetrician-Gynecologist—Age thirty-three, Catholic, married, board certified, desires association leading to partnership in eastern Pennsylvania. Military obligations fulfilled. Available after July 1, 1966. Write Department 413, PENNSYLVANIA MEDICAL JOURNAL.

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BOOKS RECEIVED

Science and Practice in Anesthesia, James E. Eckenhoff, M.D., editor. Philadelphia, Pennsylvania: J. B. Lippincott Company. Price, $7.00.

Annals of the New York Academy of Sciences, Vol. 127, Art. 1—Comparative Cardiology, Harold E. Whipple, editor. New York, New York: The New York Academy of Sciences.

Rypins' Medical Licensure Examinations, Arthur W. Wright, M.D., editor. Philadelphia, Pennsylvania: J. B. Lippincott Company. Price, $12.50.

Twins: Twice the Trouble, Twice the Fun, by Betsy Holland Gehman. Philadelphia, Pennsylvania: J. B. Lippincott Company. Price, $4.95.

Annals of the New York Academy of Sciences: Vol. 119, Art. 3, Chemistry and Metabolism of L- and D-Lactic Acids; price, $6.00. Vol. 120, Art. 2, Home Medication and the Public Welfare; price, $6.00. Vol. 126, Art. 1, Viral Diseases of Poikilothermic Vertebrates; price, $12.00. Vol. 128, Art. 1, The Staphylococci: Ecologic Perspectives; price, $8.00. Vol. 130, Art. 1, Antiviral Substances; price, $8.00. Editor of all volumes, Harold E. Whipple.

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From a *JAMA* article about the late Dr. Albert Schweitzer:

"The idea [of 'reverence for life'] was conceived one afternoon as he meditated in the bow of a dugout, paddling upstream through a heard of hippopotamus . . ."

Beats paddling through ones *not* heard of.

We're for This, But–

Headline in the *Journal of the Mississippi Medical Association:*

"Polluted Water is on the Way Out"

Emptying into what, though?

Man for the Ages

From an item in the *Philadelphia Bulletin:*

"Among the companions of William Penn on his arrival in 1682 was a Welsh physician, Thomas Wynne. The rudimentary skills of that pioneer have developed, over the centuries, into a system of medical education . . ."

Fine, but we hope poor old overworked Dr. Wynne will soon see his way clear to retire.

Taking Steps to Ease Hunger

Medical Tribune reports that out at Oklahoma State University, pigs are being fed on flights of stairs.

How long must the poor things have food withheld, though, before they'll accept this fare?

Progress in Arkansas

The *Nebraska State Medical Journal* quotes the *Bulletin of the American College of Surgeons:*

"An ordinance passed by the Little Rock, Arkansas, City Board of Directors 'completely removed ambulances from the status of emergency vehicles.' "

All right, men of Little Rock, how *do* you classify them?

Medical Malaprop:

A reliable source tells of a woman who reported, "He was awful sick—took a several hemorrhage, went into a commode, and never came out of it."

He's from Missouri, So–

Caption under picture in the *Greater Kansas City Medical Bulletin:*

"**MODERN TOXOPHILITE:** Doctor James McCormick demonstrates the archer's stance for target shooting. Note the sight on the bok above Doctor McCormick's hand."

Well, if he has to use a bok, no wonder he choots.

Hurry Up and Wait

A State Society staff man, eager for the low-down on "expediting," sent to New York for a book entitled, *How to Get More Done in Less Time.* Three months later, said volume arrived.

We wonder if the publisher and/or distributor have read it?

Caught in Time:

Even though we corrected these typing errors before the copy went to the printer, we *must* share them with you:

"The welfare amendments provide for sweeping reform and expansion of the public assistance programs [and] expansion of Kerr-Mills and needly children's programs."

". . . any drug which the secretary of Health, Education, and Welfare . . . designates as having a potential for abuse because of . . . his hallucinatory effect."

Eternal vigilance is the price of a nonridiculous journal.

Plus Factor

From the *Bulletin of the Lancaster City and County Medical Society:*

"The physicians that he creates" [*creates?!*] "will be well rounded men with a general appreciation of the depth and brddty of people and medicine."

Do you mean to say that "brddty" can be detected in people *and* in medicine?

Honors Heaped

From the Geisinger *Center Scene:*

"She received a Bachelor of Science degree . . . in 1960, with *cum laude* honors . . ."

That's almost like juicy roast beef with its own *au jus.*

Line Forms, Gals—

Classified ad in *New York Medicine:*

"Spacious, fully-equipped, elegant internist's office . . ."

Sounds just like Rock Hudson.

Of course you've heard of the proctologist whose surgical procedures left many of his patients with only a ; .

Mais, *comment?*

Item in *The DR* (of Lehigh C.M.S.) announces that a young lady, the daughter of a local physician, "is Paris-bound to observe and expand her French."

Very well—we're all for *expansion* à la Paris, but how does one *observe* one's French—there, or anywhere else?

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Marks, V., and Dawson, A.:
Brit. M. J. *1*:293, 1965.

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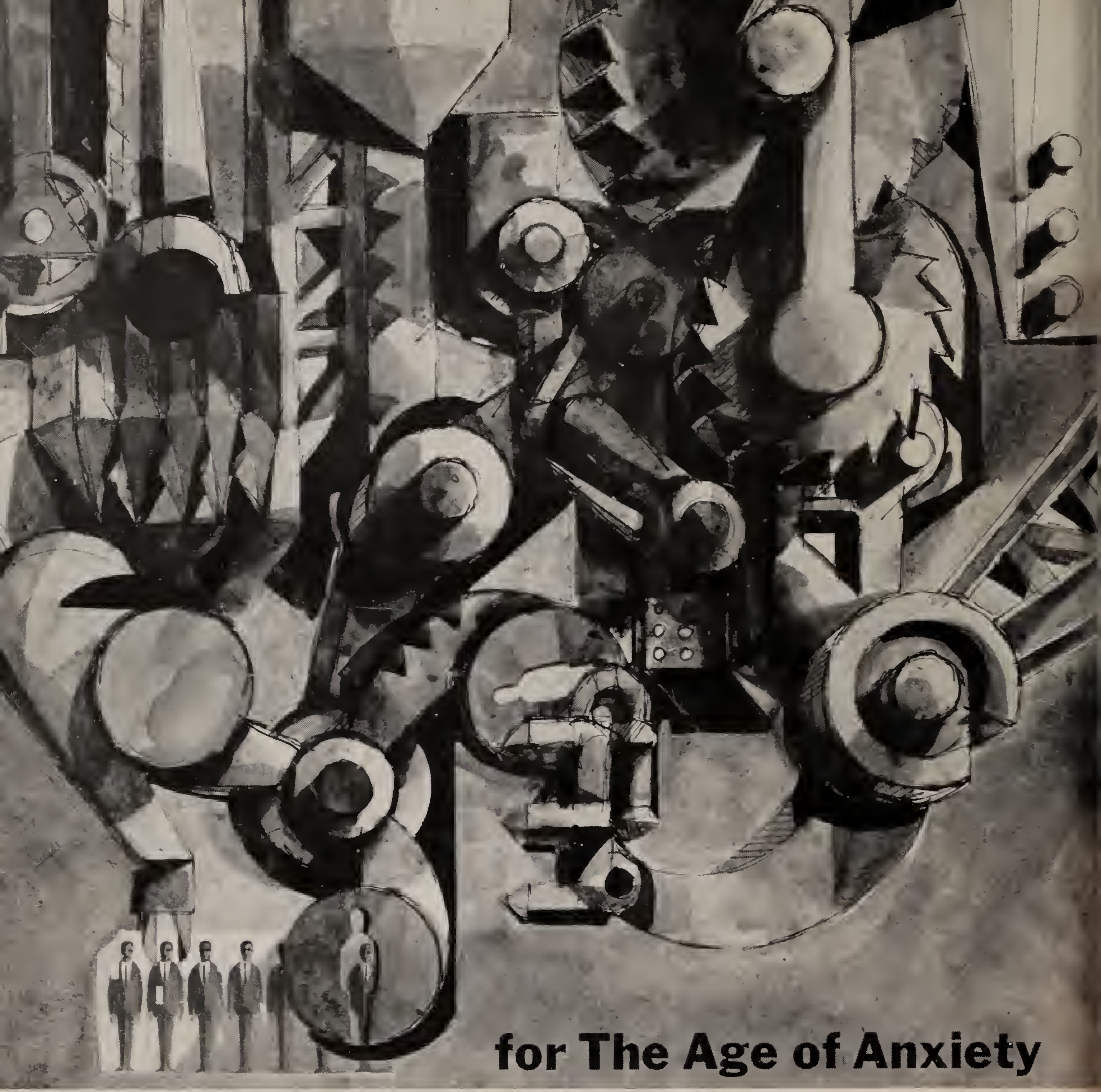
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FEBRUARY, 1966
Vol. 69 No. 2

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THE Pennsylvania MEDICAL JOURNAL

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LATE News HIGHLIGHTS

FEBRUARY, 1966

DRUG ABUSE CONTROLS

■ Physicians who do not **regularly dispense and charge** for amphetamines and barbiturates need not keep records under the new drug abuse control law effective February 1. (See the **Medical Society News** section for a report.) The Food and Drug Administration last month moved to bring under the regulations, drugs for the central nervous system that have a potential for abuse and those that might be used for their hallucinatory effect.

'PENNSYCARE'

■ **Physicians' services** to the medically needy in the hospital, home, and office, and **services** to public assistance recipients in the hospital may be part of Pennsylvania's new medicare program for the needy of all ages. See Page 64 for a report.

WHAT'S NEW IN POISON CONTROL

■ Pennsylvania's first **symposium on poisoning** (information, control, and treatment), March 15-17 in Harrisburg, will bring physicians and others up to date on information sources, enabling them to identify quickly, the toxic factors in suspected poisonings, and prescribe or implement proper antidotes.

NEWS FROM HARRISBURG

■ The **PMS Annual Session dates** have been changed to Sunday, October 9, through Thursday, October 13 . . . County societies will be asked to name the members of their organizations to attend the Society's second biggest meeting of the year, the **Officers' Conference** (Harrisburg, April 28-29) . . . **Accredited hospital** board presidents and administrators are also on the invitation list because of the subject—"medicare" . . . The annual Pennsylvania **Conference on Medical Education** will be held April 21 at Hershey . . . The PMS Council on Medical Service is studying a Philadelphia County resolution which (1) asks for a state bill to assure the availability of **malpractice insurance** to physicians, and (2) suggests formation of a medical society company to provide the coverage, if necessary.

LATE NEWS— IN BRIEF

■ Ground will be broken for the new **medical center at Hershey** late this month . . . A per-visit fee of $2.50 has been set for providing **family planning services** for public assistance recipients . . . No decision has been made by the PMS or the state on making **paregoric** a prescription drug . . . **Protopam Chlorida** has been introduced by Ayerst Laboratories as an antidote for administration to victims of pesticide poisoning and (potentially) to victims of so-called nerve-gas poisoning.

PaMPAC ELECTIONS

- **William A. Barrett, M.D.**, Pittsburgh, has been named the Tenth District representative on the Board of Directors of PaMPAC. **Herbert L. Hanna, M.D.**, Blairsville, will represent the Ninth District. Other members are incumbents, reelected.

MEETINGS TO NOTE

- 30th Annual **Postgraduate Institute** of Philadelphia County Medical Society, March 22-25 . . . Pennsylvania **Society of Internal Medicine** annual meeting, Bedford Springs, May 13-15 . . . Pennsylvania Academy of Ophthalmology and Otolaryngology and Pennsylvania Physicians Art Association **art and hobby show**, Bedford Springs, May 18-22 . . . **Maryland's annual meeting**, April 27-28, Baltimore . . . Symposium on **Medicine and Law**, Allentown, February 11-12.

This Month

ORIGINAL PAPERS

TO HELP THEM STOP SMOKING

Degrees of success with four methods used under controlled conditions are reported, and the techniques evaluated. Page 39.

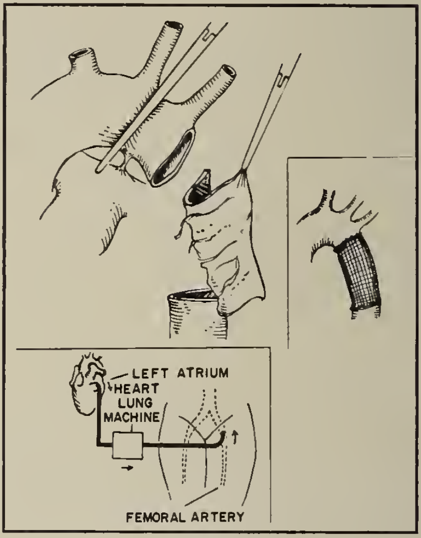
MULTIFACETED PROTOCOL

A radiologist and a pathologist report and discuss a case involving many and varied complications. Page 45.

VITAL ENVISIONING OF CYSTIC TISSUES

Two Pittsburgh radiologists delineate important factors relating to cystoangiography. Page 51.

In our March Issue:



STEP BY STEP IN AORTA REPAIR

Thoracic trauma from 7,000 pounds of pressure necessitates intricate aortic surgery in a young industrial worker.

OTHER FEATURES

■ ■

Hershey Medical Center Groundbreaking

■ ■

Facts You Need About Malpractice Coverage

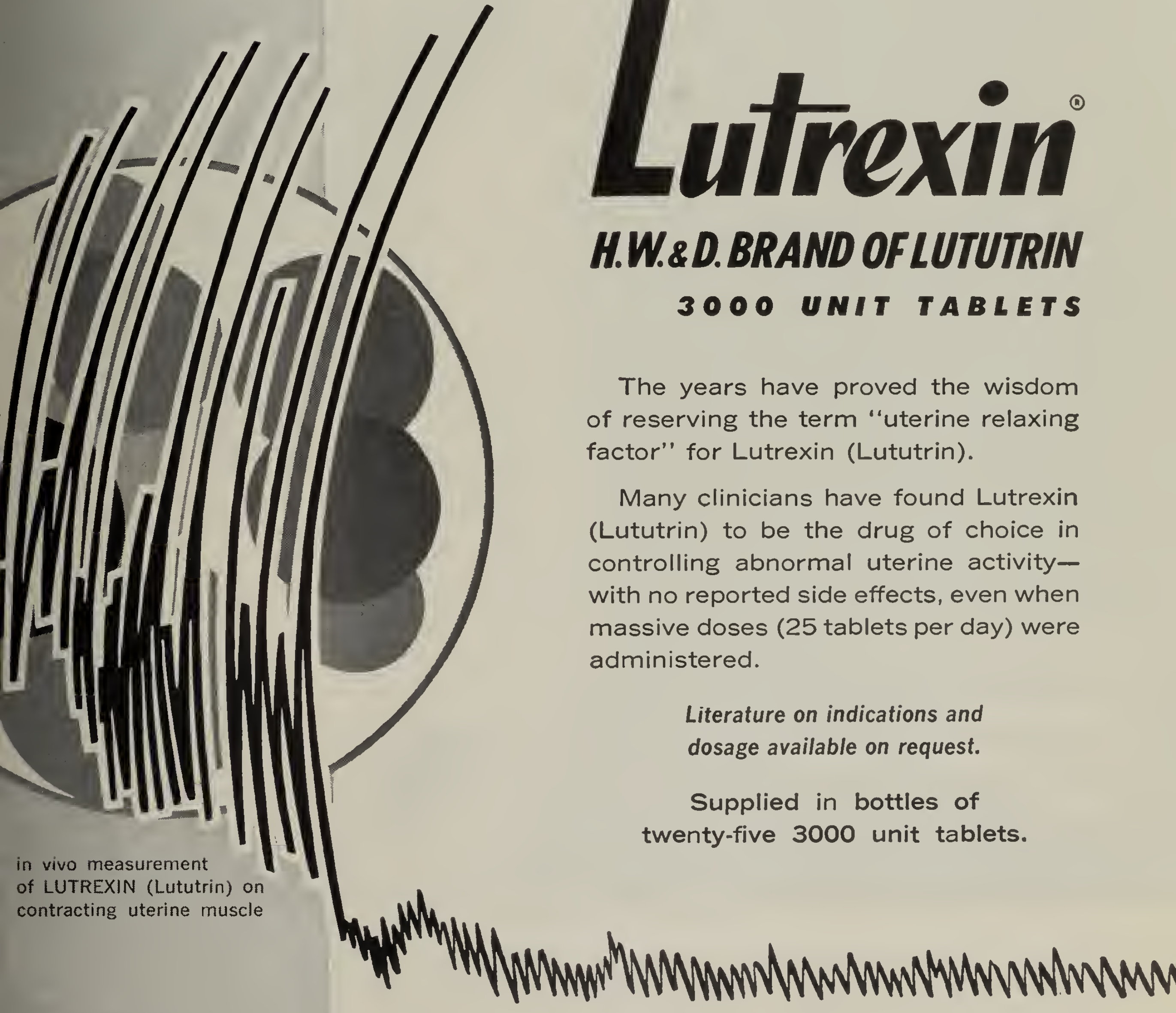
■ ■

Physicians and Social Security

IN THE TREATMENT OF SELECTED CASES OF PREMATURE LABOR

AND THREATENED

AND HABITUAL ABORTION



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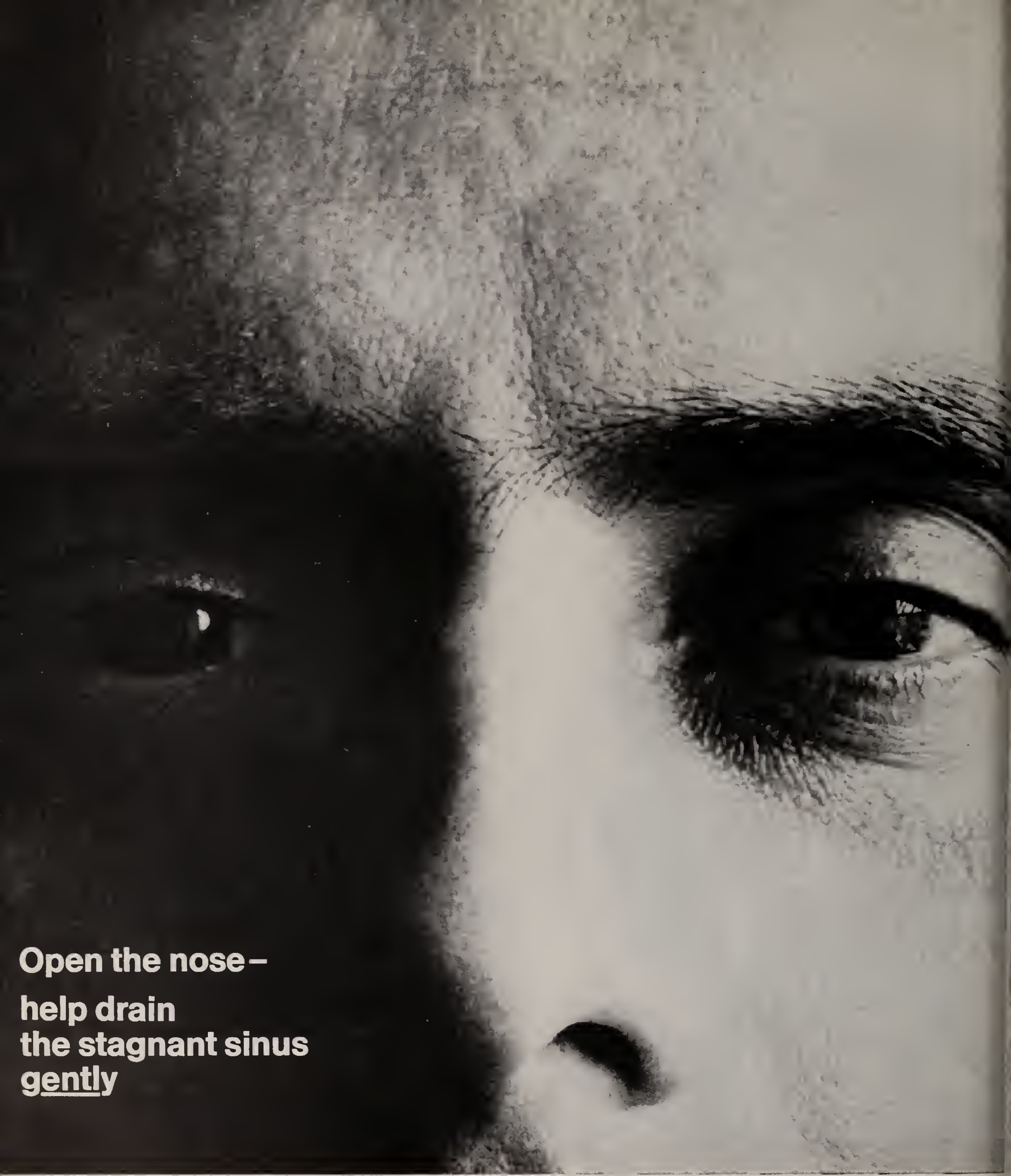

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*Proctor, D. F.: The Nose, Paranasal Sinuses, and Ears in Childhood, Springfield, Ill., Charles C Thomas, 1963, p. 34.

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VOLUME 69 NUMBER 2

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She's on a diet.
She's discouraged.
She needs your help.

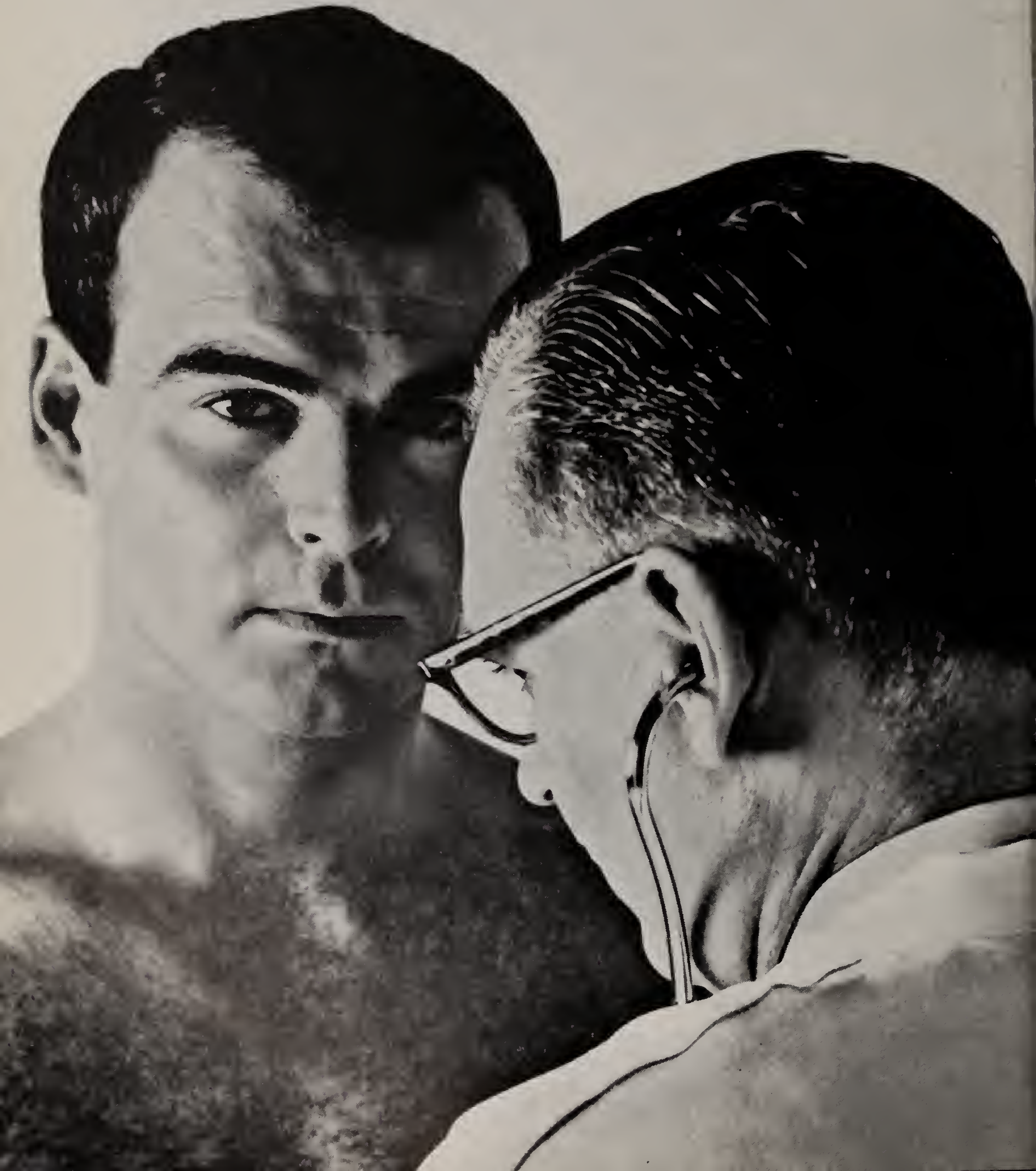
You can encourage her with DEXAMYL®
brand of dextroamphetamine sulfate and amobarbital

'Dexamyl' is the mood-lifting anorectic; it not only assures unexcelled control of appetite but also improves outlook.

Formula: Each 'Dexamyl' Spansule® (brand of sustained release capsule) No. 1 contains 10 mg. of Dexedrine® (brand of dextroamphetamine sulfate) and 1 gr. of amobarbital, derivative of barbituric acid [Warning, may be habit forming]. Each 'Dexamyl' *Spansule* capsule No. 2 contains 15 mg. of Dexedrine (brand of dextroamphetamine sulfate) and 1½ gr. of amobarbital [Warning, may be habit forming]. *Principal cautions and side effects:* Use with caution in patients hypersensitive to sympathomimetics or barbiturates and in coronary or cardiovascular disease or severe hypertension. Insomnia, excitability and increased motor activity are infrequent and ordinarily mild. *Before prescribing, see SK&F product Prescribing Information. Smith Kline & French Laboratories, Philadelphia* SK&F

in respiratory infections

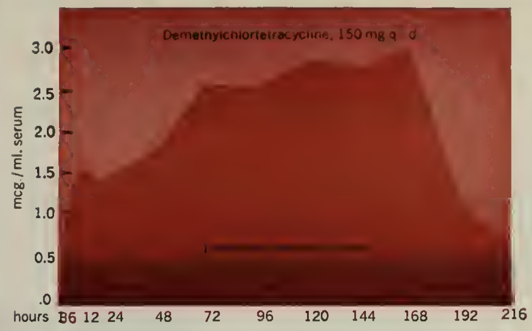
for broad-spectrum performance above and beyond the activity of ordinary tetracyclines



greater potency

lower mg intake per day

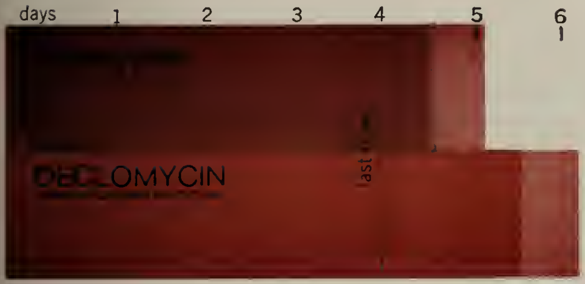
600 mg versus 1,000 mg



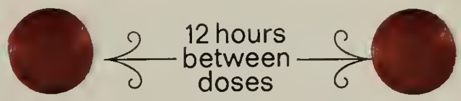
higher activity

higher activity levels with less peak-and-valley fluctuation

(Adapted from Sweeney, W. M.; Dornbush, A. C. and Hardy, S. M.: Demethylchlortetracycline and Tetracycline Compared. *Amer. J. Med. Sci.* 243:296 (Mar.) 1962.)



1-2 days' "extra" activity



one 300 mg Tablet
mid-morning

one 300 mg Tablet
mid-evening

It's made for b.i.d.

DECLOMYCIN®
DEMETHYLCHLORTETRACYCLINE

Effective in a wide range of everyday infections — respiratory, urinary tract and others — in the young and aged—the acutely or chronically ill—when the offending organisms are tetracycline-sensitive.

Side effects typical of tetracyclines include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis, dermatitis, overgrowth of nonsusceptible organisms, tooth discoloration (if given during tooth formation) and increased intracranial pressure (in young infants). Also, very rarely anaphylactoid reaction. Reduce dosage in impaired renal function. Because of reactions to artificial or natural sunlight (even from short exposure and at low dosage), patient should be warned to avoid direct exposure. Stop drug immediately at the first sign of adverse reaction. It should not be taken with high calcium drugs or food; and should not be taken less than one hour before, or two hours after meals.

Capsules, 150 mg and 75 mg of demethylchlortetracycline HCl.

Tablets, film coated, 300 mg and 150 mg of demethylchlortetracycline·HCl.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y. Lederle
6785-2991

PENNSYLVANIA MEDICINE

HEW Grants Assure Spring Start On Hershey Medical Center

A SPRING START on construction of the $50 million medical complex at Hershey has been assured by allocation of more than $10 million in federal funds. Two grants were approved—one for $8.5 million, the other for nearly $1.8 million.

DR. HARRELL

News of the allocation was hailed by George T. Harrell, Jr., M.D., dean of the medical school, who stated that the project is now assured of adherence to its timetable, "with the probability that the medical college will be ready to receive its first students in September of 1967."

The larger of the two grants will go toward construction of the medical sciences building, the smaller toward financing the research portion of the center. Additional federal assistance will be requested with regard to construction of a 350-bed teaching hospital, and an animal farm.

ORIGINAL IMPETUS for the center was provided by a $50 million award from the Milton S. Hershey Foundation, but additional funds have been sought so that $30 million can be retained as an endowment for the educational program and for teaching experiments. Notable among the latter is Dr. Harrell's concept of "in depth" preceptorships. The teaching facility is to be known as "The Pennsylvania State University College of Medicine."

(The JOURNAL presented a complete report of Dr. Harrell's plans in its March, 1965, issue.)

Accreditation, Utilization Plan Qualify Hospital for Medicare

HOSPITALS approved by the Joint Commission on the Accreditation of Hospitals will qualify automatically for medicare participation if they have a utilization review mechanism.

The federal Health, Education, and Welfare Department said last month that a state agency may recommend that a hospital be declared eligible for participation if:

1. It is accredited by the Joint Commission and has or will have in effect by July 1, a utilization review plan or,
2. It is operating in accordance with the conditions of participation with no significant deficiencies or,
3. It is found to have deficiencies but is making reasonable plans and efforts to correct them and is rendering adequate care, without hazard to the health and safety of patients.

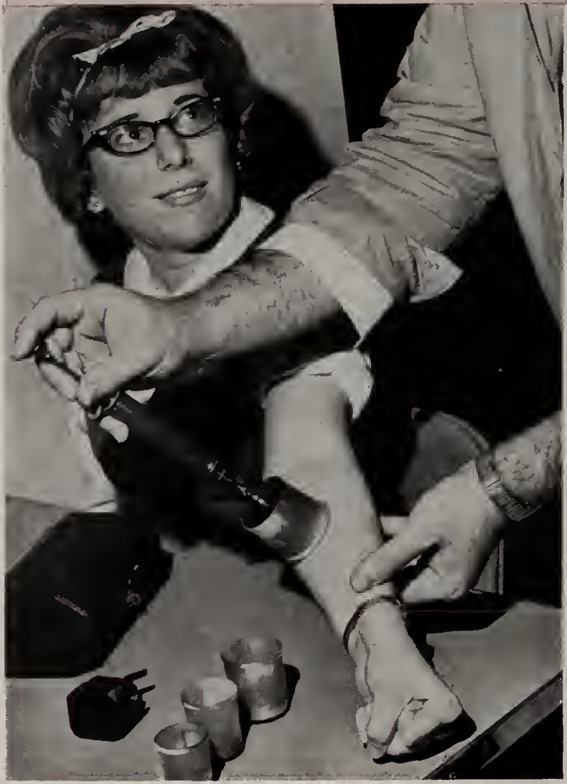
Medicare Intermediaries Named

FORMAL CONTRACTS are expected to be signed soon by the federal Health, Education, and Welfare Department and three organizations named as intermediaries for administration of the medicare hospital program.

HEW has named Blue Cross Association, Aetna Life and Casualty, and the Travelers Insurance Company as the intermediaries.

THE SOCIAL SECURITY Administration, meanwhile, stepped up its information program to advise the elderly about the supplementary medical insurance plan. Enrollment deadline is March 31.

UNKIND CUT—Back in the early 1800's when blood-letting was still in vogue, this bleeding set was a valuable addition to the physician's armamentarium. The many-bladed scarificator (squarish object between the case and cups) was the cutting instrument; the pump and cups took care of the rest of the chore. (The cutting was omitted for purposes of this picture, much to the relief of our model, Miss Karen Miller.) This bleeding set is the latest and most valuable addition to the memorabilia being donated by physicians for the medical exhibit at the new William Penn Museum in Harrisburg. If you have an item of interest, write to Dr. Irwin Richman, chief of the Section on Science, Industry, and Technology, William Penn Memorial Museum, Harrisburg.



Doctor,

Here is the Abbott anorectic program designed to meet the individual needs of your overweight patients.

ABBOTT

mood elevation

DESOXYN® Gradumet® (methamphetamine hydrochloride)

Smooth appetite control plus mood elevation.

The obese patient on a diet often has to battle depression as well as overweight. Desoxyn Gradumet helps the dieter in both battles by elevating the mood while it curbs the appetite. Thanks to the Gradumet, medication is smoothly released all-day from a single oral dose.

If she can't take plain amphetamine, put her on DESBUTAL® Gradumet

Calms anxieties; controls compulsive eating.

Desbutal Gradumet provides 2 drugs in 2 tablet sections, combined back to back to form a single tablet. One section contains Desoxyn to curb the appetite and lift the mood; the other contains Nembutal® (pentobarbital) to calm the patient and counteract any excessive stimulation.

Both drugs are released in an effective dosage ratio throughout the day.

controlled release

Abbott
Anorectic
Program

Not all long-release vehicles are the same. Here is why the Gradumet is different and what it means for your overweight patients.

The release action is purely physical and relies on only one factor common to every patient: gastrointestinal fluid. There is no dependence on enteric coatings, enzymes, motility, or an "ideal" ion concentration in the gastrointestinal tract.

Your patients get a measured amount of medication, moment by moment, throughout the day.

They are not subjected to ups and downs of drug release . . . or to erratic release from patient to patient . . . or to erratic release in the same patient from day to day.

That's why the Gradumet provides controlled-release as well as long release.

Perhaps you saw the Gradumet model demonstration which shows that the release is entirely physical. When fluid is added, the drug in the outer ends of the channels dissolves. As fluid penetrates deeper into the channels, there is a continuous release of medication. The rate of release is rigidly controlled by the size and number of channels.

choice of 5 strengths

Abbott
Anorectic
Program

DESOXYN Gradumet
Methamphetamine Hydrochloride in Long-Release Dose Form

5 mg.

10 mg.

15 mg.

DESBUTAL 10 Gradumet
10 mg. Methamphetamine Hydrochloride,
60 mg. Pentobarbital Sodium

Front

Side

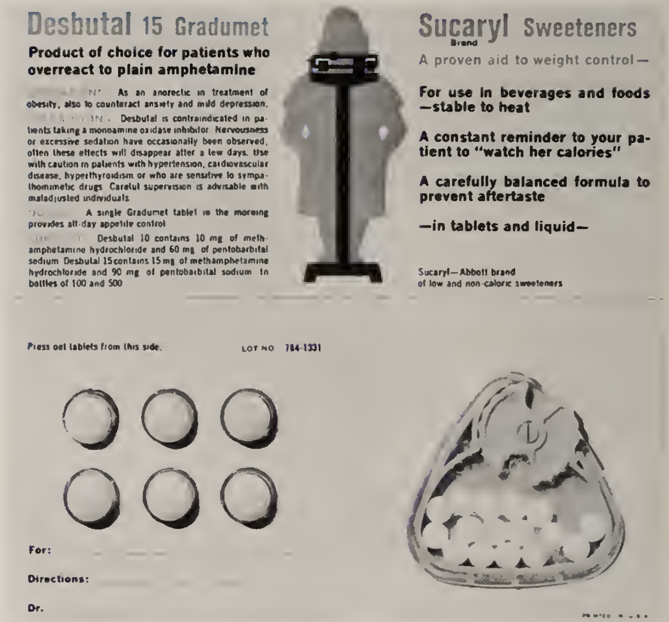
DESBUTAL 15 Gradumet
15 mg. Methamphetamine Hydrochloride,
90 mg. Pentobarbital Sodium

Front

Side

samples available

Each sample contains 6 tablets and a filled Sucaryl® Sweetener dispenser. For a supply, write Abbott Laboratories or ask your Abbott man.



Desbutal 15 Gradumet

Product of choice for patients who overreact to plain amphetamine

As an anorectic in treatment of obesity, also to counteract anxiety and mild depression.

Desbutal is contraindicated in patients taking a monoamine oxidase inhibitor. Nervousness or excessive sedation have occasionally been observed, often these effects will disappear after a few days. Use with caution in patients with hypertension, cardiovascular disease, hyperthyroidism or who are sensitive to sympathomimetic drugs. Careful supervision is advisable with maladjusted individuals.

A single Gradumet tablet in the morning provides all-day appetite control.

Desbutal 10 contains 10 mg. of methamphetamine hydrochloride and 60 mg. of pentobarbital sodium. Desbutal 15 contains 15 mg. of methamphetamine hydrochloride and 90 mg. of pentobarbital sodium. In bottles of 100 and 500.

Sucaryl Brand Sweeteners

A proven aid to weight control—

For use in beverages and foods—stable to heat

A constant reminder to your patient to "watch her calories"

A carefully balanced formula to prevent aftertaste

—in tablets and liquid—

Sucaryl—Abbott brand
of low and non-caloric sweeteners

Press out tablets from this side. LOT NO 784-1331

For:

Directions:

Dr.

economy

Patients, in many cases, save enough to get five weeks of medication for the price of four, compared to other leading long-release anorectics.

CONTRAINDICATION: Desoxyn and Desbutal are contraindicated in patients taking a monoamine oxidase inhibitor.

PRECAUTIONS: Use with caution in patients with hypertension, cardiovascular disease, hyperthyroidism, old age, or those sensitive to sympathomimetic drugs or ephedrine and its derivatives. Careful supervision is advisable with maladjusted individuals.

ABBOTT

Gradumet—long-release dose form, Abbott: U.S. Pat. No. 2,987,445.
Sucaryl—Abbott brand of low and non-caloric sweeteners.

601060

State Sets Payment for Family Planning Services

A FEE OF $2.50 per visit has been set by the state Department of Public Welfare for physicians and clinics providing family planning services to public assistance recipients.

The compensation figure is the same as that allowed for the usual office or clinic visit.

UNTIL RECENTLY, when the department changed its policy, visits to physicians and clinics for family planning services had not been compensable.

Here are other significant parts of the new regulations for payment for these services:

1. In the provision by prescription of medication and devices for family planning, the department will provide up to 80 tablets for any written medication. This exception to the 45-day limit is only for those anovulatory drugs certified by the federal Food and Drug Administration. The provision of devices upon prescription will be compensable.

2. Physicians who dispense medications or devices may bill the department for the actual cost to them of the medication or device provided the actual cost is $2.00 or more per patient visit.

3. The current provision that any prescription over $10 must be preauthorized will be continued.

PARTICIPATING PHYSICIANS will be asked to provide information for statistical studies.

Einstein Auxiliary Award Cites Noted Sex Education Authority

THE FOURTH ANNUAL "Award for Distinguished Service to Humanity," a citation sponsored by the Women's Auxiliary of Albert Einstein Medical Center, Philadelphia, honors Mary S. Calderone, M.D., Glen Head, New York. Dr. Calderone is executive director of the Sex Information and Education Council of the United States, Inc., a group founded in 1964 to "establish man's sexuality as a health entity."

DR. CALDERONE

PRIOR to assuming her present post, Dr. Calderone served for eleven years as medical director of the Planned Parenthood Federation of America.

Mrs. Jacob J. Kirshner, chairman of the Auxiliary's executive council, presented the service award during the organization's annual scientific forum in January.

Pennsylvania Again Polio-Free

SALK AND Sabin vaccine did it again in 1965. There were no reported cases of polio in Pennsylvania during the entire year.

Charles L. Wilbar, M.D., state secretary of health, commented that the record shows the effectiveness of the vaccines.

HE URGED that children be immunized in accordance with recommended schedules, beginning during the first year of life, and that they receive an additional dose prior to starting school.

In other announcements, the health department:

Warned about possible hazards in a German-made cigarette lighter named Air-Flam.

Banned the sale in Pennsylvania of small plastic transparent water-filled balls made in Hong Kong and used for cooling food and drinks.

Cautioned against use of hypodermic needles and syringes imported from Japan which may be contaminated with disease-causing organisms.

Started a survey of ambulances in north-central Pennsylvania communities to learn if they are too sleek, frilly, and "chromey."

Joined forces with the United Steel Workers of America, AFL-CIO, in presenting in USW's district 15 an "institute on alcoholism," which continues through February 28.

Geisinger Sponsors Third Sports Injuries Session

THE THIRD CONFERENCE on the prevention and treatment of athletic injuries, sponsored by The Geisinger Medical Center, is scheduled for March 26 at Bucknell University, according to Leonard F. Bush, M.D., the center's chief of staff. Cooperating in the presentation, in addition to Bucknell, are Bloomsburg State College and The Pennsylvania State University.

Program participants will include Geisinger staff members, and personnel associated with the athletic departments and medical staffs of the three academic institutions.

THE CONFERENCE has been endorsed by the State Society's Advisory Committee on Sports Injuries, the Pennsylvania Academy of General Practice, and the American Academy of Orthopedic Surgeons.

State Approves PKU Tests

THESE TESTS have been approved by the state for detection of phenylketonuria:

(1) The Guthrie blood inhibition assay procedure, (2) the McCamen and Robins fluorometric method for phenylalanine, (3) the LaDu method for phenylalanine.

THE TEST FOR PKU is to be administered on the third day of life or as soon thereafter as practicable, but not later than the fourteenth day of life unless medically contraindicated, in which case it shall be performed as soon as practicable.

SAXON

So I said, "All right, Raymond,
if you don't take your cough medicine this minute,
I'll call Doctor Peabody."

Controlling the child is sometimes as big a problem as controlling his cough. But with most children and with most coughs, the job is usually much easier with one of these effective Novahistine formulas.

If it's the useless, exhausting type of cough that often accompanies respiratory infection or allergy, you can provide prompt relief with Novahistine DH. Its decongestant-antitussive action controls frequency and intensity of cough spasms without abolishing cough reflex. And the fresh grape flavor of Novahistine DH appeals to children and adults alike.

When your diagnosis is bronchitis, complicated by thick tenacious exudates, Novahistine Expectorant is particularly useful. It not only provides decongestive action and controls the cough, but also encourages expectoration, thus easing bronchial obstruction.

Use with caution in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Ambulatory patients should be advised that drowsiness may result. Continuous dosage over an extended period is contraindicated since codeine phosphate may cause addiction.

Each 5 ml. teaspoonful of Novahistine DH contains codeine phosphate, 10 mg. (Warning: may be habit forming); phenylephrine hydrochloride, 10 mg.; chlorpheniramine maleate, 2 mg.; chloroform (approx.), 13.5 mg.; l-menthol, 1 mg. (Alcohol 5%). Each 5 ml. of Novahistine Expectorant contains the above ingredients and, in addition, glyceryl guaiacolate, 100 mg.

NOVAHISTINE® DH
NOVAHISTINE® EXPECTORANT

DOW **PITMAN-MOORE** Division of The Dow Chemical Company, Indianapolis

Remedial Physical Activities Program Geared to Aid Handicapped or Underdeveloped Youths

IF THE PRACTICE of "excusing" a handicapped child from physical education is not obsolete, it soon will be, in Pennsylvania's elementary and secondary schools. A boy or girl with limited bodily capabilities formerly sat on the sidelines, or stayed in the academic classroom on purely cerebral pursuits while his ablebodied classmates took part in games and calisthenics in the gymnasium or on the playground. Today many of these same sideliners participate, in their own way, in activities which they may need more acutely than do any of their nonhandicapped contemporaries. Before long, practically all such former nonparticipants will be engaging in a wide range of physical activities.

In September of 1966, a planned program of adapted physical education for physically handicapped and/or underdeveloped children will be launched in all grade and high schools in the state. Jointly responsible for setting up each local program will be the individual school, the municipality's department of physical education, and members of the medical profession within the community.

Program Defined

The committee on adapted physical education of the American Association for Health, Physical Education, and Recreation has drawn up this definition:

"Adapted physical education is a diversified program of developmental activities, games, sports, and rhythms suited to the interests, capacities, and limitations of students with disabilities, who may not safely or successfully engage in unrestricted participation in the vigorous activities of the general physical education program."[1]

Achievement Aims

Where this purpose is adequately carried out, each child should be able to attain: (1) an understanding of what he can and cannot do, physically; (2) correction of remediable defects, and improvement of posture; (3) organic vigor within the scope of his handicaps; (4) varied skills and safety habits bearing upon recreational sports and games; and (5) ability to participate in group activity, and to be a leader therein. Most children fall into one of four categories, where physical activity is concerned: unrestricted, moderately restricted, restricted, or remedial. Those in the last-named category need special methods and procedures for posture correction and bodily rehabilitation.

Programs of adapted physical education are already in progress in many school systems in Pennsylvania and other states, but *all* schools in our state will, within less than a year, include such programs in their curricula. What the plan amounts to is taking well-known physical education activities and adapting them to the particular needs and limitations of the handicapped child.

The ultimate goal is to serve boys and girls who have physical defects and orthopedic deviations which can be arrested, improved, or corrected. A child who engages in remedial physical education when the general or modified programs do not meet his needs should continue the regimen only so long as he profits from the special instruction.

The Physician's Role

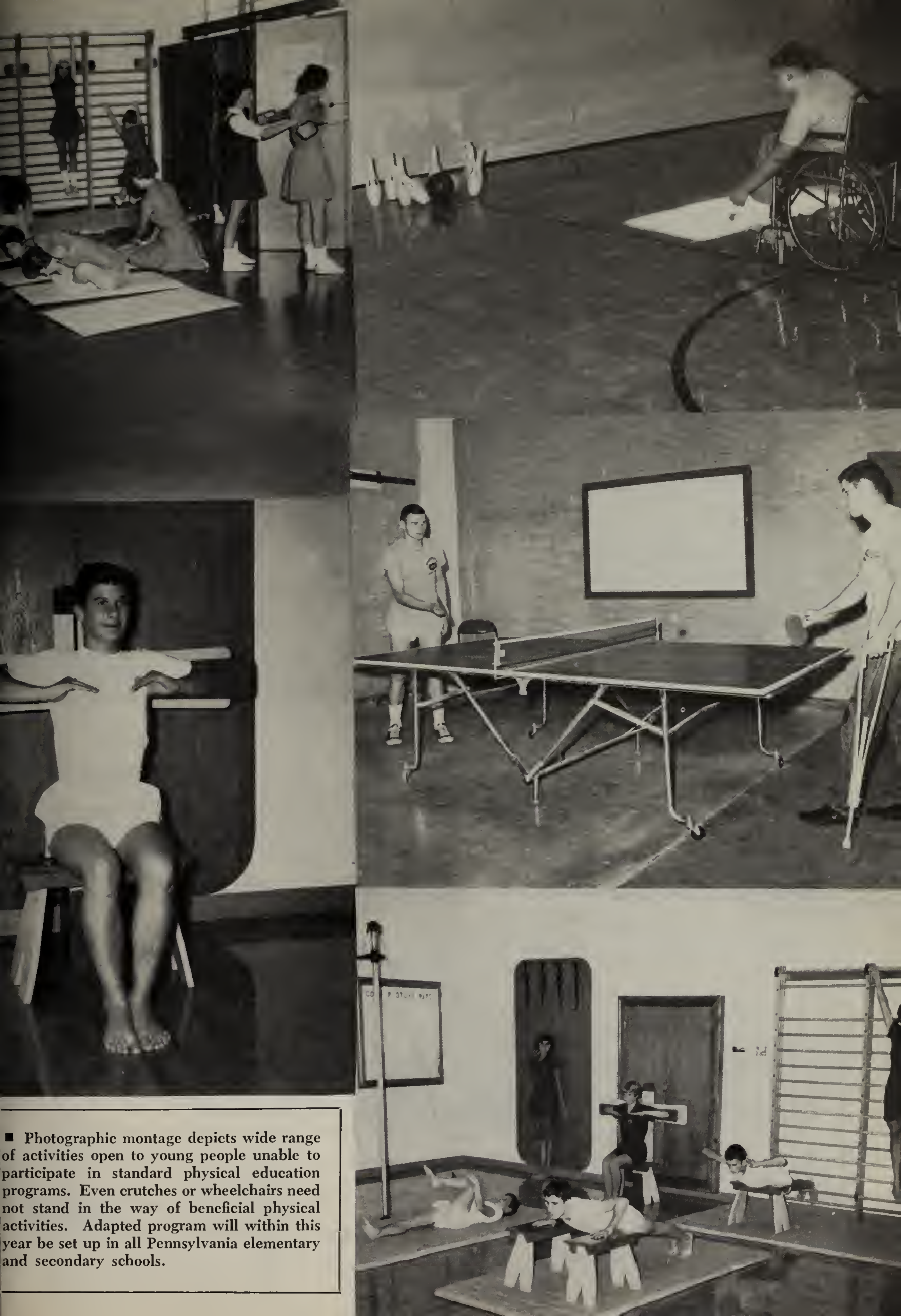
Only a physician is legally and professionally qualified to evaluate the child's condition and recommend or reject adapted physical education for him. No school should initiate this type of physical education activity on the part of any child without a "green light" and explicit recommendations from the child's physician and any specialists who may have been called into consultation. If it is impossible for the child to participate even in remedial activity, it is the physician who should say so, and his judgment should be followed implicitly.

But for most handicapped or underdeveloped children, the specialized program opens up a world of activities which not only can benefit them physically, but which can also have important overtones in the emotional and social areas of their lives.

• This article is based on information supplied by MICHAEL E. FLANAGAN, coordinator of health, physical education, and safety of the state Bureau of General and Academic Education.

Reference 1: Guiding Principles for Adapted Physical Education, *J. Am. Assn. Health, Phys. Educ., and Recr.*, 22, 4:15, April, 1952.

Copies of *Guidelines for Adapted Physical Education* are available from the Bureau of Public Information, Box 911 Education Building, commonwealth of Pennsylvania, Harrisburg 17101.



■ Photographic montage depicts wide range of activities open to young people unable to participate in standard physical education programs. Even crutches or wheelchairs need not stand in the way of beneficial physical activities. Adapted program will within this year be set up in all Pennsylvania elementary and secondary schools.

Laboratories Accepting Cytology Specimens by Mail

Robert H. Fennell, Jr., M.D., Chairman of the Committee on Exfoliative Cytology, Pennsylvania Association of Clinical Pathologists, compiled this list in cooperation with the Pennsylvania Association of Clinical Pathologists and the State Society's Commission on Cancer. Contact the director of the laboratory nearest you for requisitions, and for details on processing and mailing specimens.

ABINGTON

John W. Eiman, Abington Memorial Hospital (19001).

ALIQUIPPA

Kenneth E. Carlson, Aliquippa Hospital (15001).

ALLENTOWN

Allentown Hospital Association (18102).

ALTOONA

Henry L. Kazel, Mercy Hospital (18103).

Howard Sbaub, Altoona Hospital (18102).

ASHLAND

Ernest L. Armstrong, Ashland State General Hospital (17921).

BERWICK

Berwick Hospital (18603).

BETHLEHEM

Edward J. Benz, St. Luke's Hospital (18015).

BRISTOL

David E. Bassett and John J. McGraw, Lower Bucks County Hospital (19007).

BRYN MAWR

Max M. Strumia, Paul V. Strumia, B. Owen, and A. Gudaitis, Laboratory of Clinical Pathology, Bryn Mawr Hospital (19010).

BUTLER

Ralph M. Weaver, Butler Hospital (16002).

CAMP HILL

Holy Spirit Hospital (17011).

CARLISLE

James M. Smith, Carlisle Hospital (17013).

CHAMBERSBURG

William E. B. Hall and Howard L. Hoffman, Chambersburg Hospital (17201).

CHESTER

Clarence L. Lehman, Crozer Hospital (19013).

CLEARFIELD

Laboratory, Clearfield County Hospital (16830).

DANVILLE

Joseph C. Sieracki, Geisinger Medical Center (17821).

DREXEL HILL

G. Troio, Delaware County Hospital (19026).

EAST STROUDSBURG

Moses J. Leitner, General Hospital (18301).

EASTON

J. Claude Gaulin, Easton Hospital (18043).

ELKINS PARK

Lawrence Smith, Rolling Hill Hospital (19117).

EPHRATA

William B. Gaynor, Community Hospital (17522).

ERIE

John A. Fust, M.D., Hamot Hospital (16507).

Richard B. Eisenberg, St. Vincent Hospital (16502).

FRANKLIN

A. Gialamas, Franklin Hospital (16323).

GETTYSBURG

C. Harold Johnson, 31 South Washington Street (17325).

GREENSBURG

James M. Mayhew, Westmoreland Hospital Association (15602).

GREENVILLE

Department of Pathology, Greenville Hospital (16125).

GROVE CITY

J. H. Ramsey, Grove City Hospital (16127).

HANOVER

John J. Hagarty, General Hospital (17331).

HARRISBURG

F. Wells Brason, Harrisburg Hospital (17104).

M. E. Dufner, Pennsylvania State Hospital (17104).

James S. Forrester, Polyclinic Hospital (17110).

HAZLETON

Julius Foldes, Hazleton State General Hospital (18201).

Physicians' Clinical Laboratory (18201).

St. Joseph's Hospital (18201).

HOMESTEAD

Rene A. Fontaine, Homestead Hospital (15120).

JOHNSTOWN

Albert M. Benshoff, Mercy Hospital (15905).

James A. Rock, Lee Hospital (15901).

LANCASTER

Cytology Laboratory, 435 West Chestnut Street (17603).

Roland A. Loeb and William O. Umiker, St. Joseph's Hospital (17603).

Ward N. O'Donnell, Lancaster General Hospital (17602).

LATROBE

Walter W. Jetter, Latrobe Hospital (15650).

LEBANON

L. M. Tanner, Good Samaritan Hospital (17042).

MEADOWBROOK

John J. Hagarty, Holy Redeemer Hospital (19046).

MEADVILLE

Wilbur C. Thomas, Meadville City Hospital and Spencer Hospital (16335).

NATRONA HEIGHTS

Stephen J. C. Miller, Allegheny Valley Hospital (15065).

NEW CASTLE

Golden Selin, New Castle Hospital (16101).

NEW KENSINGTON

Jacob Levine, Citizens' General Hospital (15068).

NORRISTOWN

Manuel A. Bergnes, Sacred Heart Hospital (19401).

Hitoshi T. Tamaki, Montgomery Hospital (19401).

OIL CITY

Maurice Dinberg, Oil City Hospital (16301).

PHILADELPHIA

Ernest A. Aegerter, Temple University Hospital (19140).

Sophie A. Brenner, Hospital of the Woman's Medical College of Pennsylvania (19129).

Henry Brody, Einstein Medical Center (19141).

Clark E. Brown, Lankenau Hospital (19131), and Clinical Pathology, 1930 Chestnut Street (19103).

James Butcher, Presbyterian Hospital, (19104).

A. Reynolds Crane, Ayers Clinical Laboratory and Pennsylvania Hospital (19139).

Robert A. Donato and Nadija L. Nicu, Jeanes Memorial Hospital (19111).

Andrew J. Donnelly, American Oncologic Hospital (19111).

H. T. Enterline, Laboratory of Pathologic Anatomy, University of Pennsylvania (19104).

C. Q. Griffith, Frankford Hospital (19124).

Frederick E. Haentze, Memorial Hospital (19128).

Peter A. Herbut, Jefferson Medical College Hospital (19107).

Irene Koprowska, Hahnemann Medical College and Hospital (19102).

David R. Meranze, Einstein Medical Center (19141).

Misericordia Hospital (19143).

A. C. Neruetti, Graduate Hospital (19146).

S. Brandt Rose, Chestnut Hill Hospital (19108).

PHILLIPSBURG, N. J.

Edwin E. Zeigler, Warren Hospital (08865).

PITTSBURGH

John F. Beauregard, 3515 Fifth Avenue (15213).

Mark M. Bracken, Mercy Hospital and Clinical Laboratory (15219).

Robert H. Fennell, Jr., Presbyterian-University Hospital (15213).

Louis Goodman and Leonard B. Myers, South Side Hospital (15213).

Robert C. Grauer, Allegheny General Hospital (15212).

Paul Gross, Clinical Pathologic Laboratory, 7145 Jenkins Arcade (15222).

Elwyn L. Heller, Shadyside Hospital (15232).

John E. Kurtz, St. Margaret's Memorial Hospital (15201).

John A. Leam, St. Clair Memorial Hospital and Laboratory (15216).

Robert C. Lyons, Suburban General Hospital (15202).

Magee-Woman's Hospital (15213).

Harvey Mendelow, Montefiore Hospital (15213).

Richard G. McManus, Western Pennsylvania Hospital (15224).

St. Joseph's Hospital (15203).

Joseph R. Sugerman, Clinical Laboratory, 3519 Fifth Avenue (15213).

William B. Zieler, St. John's Hospital (15212).

POTTSTOWN

J. Ross Schmidt, 417 Highland Road (19464).

R. Alan Schofield, Memorial Hospital (19464).

POTTSVILLE

Robert E. Hobbs, Pottsville Hospital (17901).

READING

Hunter S. Cook, Community General Hospital (19601).

George P. Desjardins and Jasper G. Chen See, St. Joseph's Hospital (19604).

W. P. Jennings, The Reading Hospital (19602).

ROCHESTER

Thomas W. McCreary, Rochester General Hospital (15074).

SAYRE

Ralph S. McCants, Robert Packer Hospital (18840).

SCRANTON

James J. O'Connor, Jr., and Mark A. Hennessey, Clinical Laboratory, 403 Medical Arts Building (18503).

SELLERSVILLE

Grand View Hospital (18960).

SHARON

Frederick J. Raisch, Sharon General Hospital (16147).

SOMERS POINT, N. J.

Frank W. Konzelmann, Shore Memorial Hospital (08244).

SPANGLER

George J. Heid, Jr., Miner's Hospital (15775).

ST. MARYS

Andrew Kane Memorial Hospital (15857).

SUNBURY

Willard W. Christman, Sunbury Community Hospital (17801).

TRENTON, N. J.

Thomas K. Rathmell, Mercer Hospital (08208).

TUNKHANNOCK

Hollis K. Russell, Tunkhannock Hospital (18657).

UNIONTOWN

George Tolstoi, Uniontown Hospital Association (15401).

WASHINGTON

Howard Quittner, Washington Hospital (15301).

WEST CHESTER

Harry A. Rothrock, Memorial Hospital (19380).

WILKES-BARRE

Wilkes-Barre General Hospital (18702).

WILLIAMSPORT

Merl G. Colvin and Mahlon J. Pophal, Williamsport Hospital (17702).

WILMINGTON, DEL.

John W. Howard, Delaware Hospital (19899).

YORK

Thomas J. Burkhart, Francis A. McKeon, and Jacinto Gochoco, York Hospital (17403).

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M.D.'s IN THE NEWS

William J. Erdman, II, M.D., Philadelphia, chairman of the department of physical medicine and rehabilitation, University of Pennsylvania School of Medicine, has been named to the same responsibility at Philadelphia General Hospital. Appointed chief of service is **John McM. Mennell, M.D.**, associate professor, University of Pennsylvania School of Medicine. The two physicians will be in charge of department of physical medicine and rehabilitation responsibilities formerly handled by the late **Albert A. Martucci, M.D.**

Henry S. Murphey, M.D., former commanding general of Walter Reed Hospital, Washington, D.C., is the new medical director of the Henry R. Landis State Hospital, Philadelphia. He succeeds **Arthur R. Gaines, M.D.**, Philadelphia, who resigned the position after thirteen years' service.

S. Ira McDowell, M.D., York, dean of physicians in York County, celebrated his ninety-fifth birthday recently. An alumnus of Jefferson Medical College, Dr. McDowell also studied medicine in London and Vienna. He established his practice in York shortly after the turn of the century.

Francis C. Jackson, M.D., Pittsburgh, Chief surgeon at the Veterans Administration Hospital and a faculty member at the University of Pittsburgh School of Medicine, has been promoted to a surgery professorship in the latter institution. Dr. Jackson, chairman of the AMA Committee on Disaster Medical Care and a member of the AMA Council on National Security, also belongs to the Central Surgical Association, the American Association for the Surgery of Trauma, the Association for Surgery of the Alimentary Tract, and the Trauma Committee of the American College of Surgeons.

Carl Levenson, M.D., Elkins Park, is a recently-appointed member of the rehabilitation committee of the Hospital Association of Pennsylvania.

The highest professional citation of Albany Medical College, Union University, was designated for **I. S. Ravdin, M.D.**, emeritus professor of surgery at the University of Pennsylvania School of Medicine. Dr. Ravdin accepted the 1965 Honorary Lectureship Award during ceremonies at Albany Medical College in mid-November, delivering an address on "Two Hundred Years of American Medicine—A Look at the Past and Prophecy for the Future."

After a long public health career—much of it devoted to health concerns in Pennsylvania—**F. Edward Coughlin, M.D.**, Pittsburgh, has retired, leaving on a tour of South Pacific islands and continents, and visiting the Hawaiian group before returning to the United States.

Succeeding Dr. Coughlin as regional medical director of the Pennsylvania Department of Health's Region Four is **Anne B. Wagner, M.D.**, Pittsburgh. Her area of responsibility includes Fayette, Greene, Somerset, Washington, and Westmoreland Counties.

Philip D. Gordy, M.D., formerly of Portland, Oregon, has been appointed professor and head of the neurosurgery division in the department of surgery at Jefferson Medical College and Hospital. **John H. Gibbon, Jr., M.D.**, Samuel D. Gross professor of surgery and head of the department, announced the appointment. Dr. Gordy, an alumnus of the University of Michigan and of its medical and graduate schools, has latterly been on the faculty of the University of Oregon Medical School. Prior professional activities included neurosurgery practice in Wilmington, Delaware, and the post of chief of neurosurgical services at several hospitals in that area. He is a member of Phi Beta Kappa, Alpha Omega Alpha, The Harvey Cushing Society, the American College of Surgeons, and the Congress of Neurological Surgeons. A founding member and past president of the latter organization, Dr. Gordy has been its delegate to the World Federation of Neurosurgical Societies.

DR. GORDY

Mary M. Romeika, M.D., Shenandoah, the first woman president of the Schuylkill County Medical Society, was honored at a recent meeting of the organization. The event marked another "first" for the Schuylkill group: **James Z. Appel, M.D.**, Lancaster, guest speaker, was the first AMA president ever to visit Schuylkill's medical society.

Instrumental in bringing to light the use of marijuana and other dangerous drugs by a small group of Roxborough High School students was **Gerry T. Cousounis, M.D.**, Philadelphia. According to a newspaper report, Dr. Cousounis recognized the signs of narcotics ingestion when a boy who "seemed ill" was brought to the doctor's office by a concerned father.

Participating in the Chicago annual meeting of the Radiological Society of North America in December were these Temple University Health Sciences Center staff members: **Drs. Akbar Bonakdarpour, Marc S. Lapayowker, Henry J. Woloshin, Margaret J. McGann,** and **Max L. Ronis.** Others taking part included **Drs. Adel K. Friedman, Samuel I. Askovitz,** and **Eugene P. Pendergrass,** all of the University of Pennsylvania School of Medicine; **Simon M. Berger, M.D.**, of Albert Einstein Northern Division; **Gerald D. Dodd, M.D.**, of Jefferson Medical College; **Donald E. Parlee, M.D.**, of Hahnemann Medical College and Hospital; **George N. Stein, M.D.**, of Graduate Hospital; and **Drs. Howard M. Pollack, Joshua A. Becker, Renate L. Soulen, Jose L. Giminez, John A. Kirkpatrick, Jr., Frederick Murtaugh, Robert Robbins,** and **Herbert M. Stauffer,** all associated with Temple's radiology department.

R. William Alexander, M.D., Reading, is the new president of the Kiwanis Club in his city.

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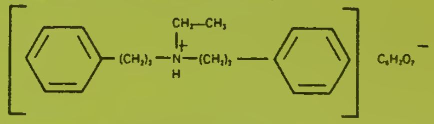
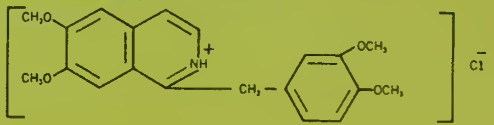
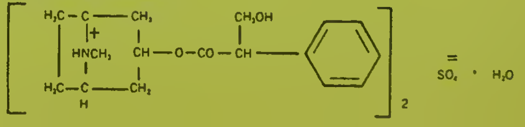


Papaverine Hydrochloride



Atropine Sulfate



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INDICATIONS: Smooth muscle spasmolytic for use in **spastic colon,** spastic conditions of the gastrointestinal tract, biliary dyskinesia, cholecystitis, spasm associated with peptic ulcer†, cardiospasm, pylorospasm, spasm attendant to diarrhea, spastic conditions of the genitourinary tract attributable to inflammation and calculi, certain primary dysmenorrheas and as an aid in cystoscopic, esophagoscopic and gastroscopic examinations.

†Antacid and dietary measures are of primary importance in ulcer treatment and should not be neglected.

DOSAGE: One tablet after meals 1 to 3 times daily at discretion of physician. When treating spasm associated with peptic ulcer, cardiospasm or pylorospasm, administer tablets 1/2 hour before meals. In dysmenorrhea, one tablet 3 times daily starting at onset of discomfort.

PRECAUTION: Caution is recommended when using in hypotensive patients.

SIDE EFFECTS: In common with other smooth muscle depressants, Spacolin temporarily lowers blood pressure.

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Cited recently for outstanding geriatric service in Lackawanna County is **John P. McGowan, M.D.**, director of the physical medicine department at Mercy Hospital, Scranton.

Ronald S. Wagner, M.D., was the ten thousandth member admitted to the National Association of Residents and Interns, Inc. **Edward R. Annis, M.D.**, a past president of the AMA who heads the Advisory Board of Trustees of the residents' and interns' organization, made a presentation to Dr. Wagner, an intern at the Einstein Northern Division, Philadelphia.

Marjorie S. Hosfeld, M.D., Philadelphia, has been appointed to the staff of Magee Memorial Hospital, according to an announcement by **H. Frazer Parry, M.D.**, director.

Honored at a testimonial dinner in December was **David R. Meranze, M.D.**, pathologist and director of laboratories at the Einstein Southern Division since 1930, and assistant director of research for the medical center. On December 31, Dr. Meranze retired from his long-time post, to conduct medical research at Einstein's Research Laboratories on a full-time basis.

Michael G. Wohl, M.D., Philadelphia, chairman of the Philadelphia County Medical Society's Committee on Nutrition and Metabolism, was the author of the lead editorial in a recent issue of the *Medical Tribune*. The publication recognized, in an added commentary, contributions to the field of nutrition by Dr. Wohl, who, with Robert S. Goodhart, edited the 1964 edition of *Modern Nutrition in Health and Disease*.

N. Henry Moss, M.D., Philadelphia, is president-elect of the New York Academy of Sciences, an honor accorded to only one other Philadelphian in the Academy's 148-year history. Dr. Moss will become president of the organization during its sesquicentennial year—1967. **Hilary Koprowski, M.D.**, director of the Wistar Institute, Philadelphia, was president of the Academy in 1959, and has subsequently served on its board of trustees.

Pennsylvania physicians accepting Peace Corps assignments include the following: **Charles R. Kelley, M.D.**, Doylestown (to Afghanistan); and **Mabell S. Hayes, M.D.**, Wattsburg (to India).

I. S. Ravdin, M.D., emeritus professor of surgery, University of Pennsylvania School of Medicine, received the Pennsylvania Society's gold medal for distinguished achievement.

At an age when many physicians are "tapering off" or have retired completely, **Maurice H. Heatter, M.D.**, Donora, seventy-three, continues as physician for the high school football team in his community. This season—his forty-eighth with the team—was the first one in over fifteen years that only one Dr. Heatter was on duty during a Donora-Monessen game. Dr. Maurice's brother, the late **Max W. Heatter, M.D.**, had served as athletic team physician at Monessen High School since the late 1940's.

Hahnemann Medical College and Hospital staff members honored on their service anniversaries included: **William P. Gregg, M.D.**, Upper Darby (clinical associate professor of pediatrics)—20 years; **Joseph E. Imbriglia, M.D.**, Drexel Hill (professor and chairman, department of pathology) —15 years; **Van Buren O. Hammett, M.D.**, Bryn Mawr (professor and chairman, department of psychiatry)—15 years; and **Robert Bower, M.D.**, Wyncote (assistant professor of surgery)—10 years.

Seven hundred guests attended a testimonial dinner for **Harry W. Croop, M.D.**, Kingston, honoring him for long and distinguished service to his community. Dr. Croop has served as president of the Luzerne County Medical Society and of the medical staff of Wilkes-Barre General Hospital.

Thomas J. E. O'Neill, M.D., was elected president of the medical board of Episcopal Hospital in Philadelphia. **Isadore Zugerman, M.D.**, was elected vice-president and **Edgar L. Pennell, Jr., M.D.**, secretary-treasurer. New members of the executive committee are **Drs. Robert W. Hyatt, Charles S. Kambe, Meyer Perchonock, and Michael I. Wolkowicz.**

Pennsylvania physicians named to receive clinical traineeship grants by the Public Health Service for more training in cancer control, prevention, diagnosis, and treatment are **Drs. Joseph R. Mussell, Herman J. Stein, Henry R. Tatem, III, Peter S. Liebert, Charles J. Johnson, William P. Graham, III, Donald N. Gill, Harte Cooper Crow, and John R. Campbell**, all of Philadelphia.

Frank H. Krusen, M.D., has been appointed director of rehabilitation programming for Temple University. **Bernard Sandler, M.D.**, was promoted to the chairmanship of the Department of Physical Medicine and Rehabilitation.

Scrantons' **Elihu Friedmann, M.D.**, presented a paper before the Latin American Congress of Orthopaedics and Traumatology in Lima, Peru.

A Syllabus of Medical History by **Fred B. Rogers, M.D.**, professor of preventive medicine at Temple University School of Medicine, has been published in Korea for medical, dental, and pharmacy students.

Michael Newton, M.D., named director-elect of the American College of Obstetricians and Gynecologists, interned at Philadelphia's Pennsylvania Hospital and was in private practice in the city in 1954-55, with affiliations at the Hospital of the University of Pennsylvania and Bryn Mawr and Chester County Hospitals.

A VERY IMPORTANT DATE

■ PMS AND AMA membership assessments for 1966 must be paid by March 1, through the county medical societies. If no payment is made by that date, the member becomes delinquent, losing the rights and privileges of membership.

MEETINGS

PENNSYLVANIA MEDICAL SOCIETY

APRIL

Seventh Annual Institute on Perinatal Mortality and Morbidity—Holiday West Motor Hotel, Harrisburg, April 14.

Officers' Conference—Penn Harris Hotel, Harrisburg, April 28, 29.

OCTOBER

One Hundred Seventeenth Annual Session—Penn Sheraton Hotel, Pittsburgh, October 11–14.

REGIONAL

MARCH

College of Physicians of Philadelphia, and New York Academy of Medicine, joint meeting of otolaryngology sections—College of Physicians, Philadelphia, March 16.

"Pennsylvania Day" (Ophthalmology meeting)—Mt. Sinai Hospital, New York, March 16.

APRIL

Gill Memorial Hospital Thirty-ninth Annual Spring Congress (Ophthalmology and Otolaryngology)—Roanoke, Virginia, April 4-8.

West Virginia Academy of Ophthalmology and Otolaryngology—Greenbrier Hotel, White Sulphur Springs, West Virginia, April 13–16. Contact J. Elliott Blaydes, Jr., M.D., First National Bank Building, Bluefield, West Virginia 24701.

NATIONAL

MARCH

Nineteenth National Conference on Rural Health—Broadmoor Hotel, Colorado Springs, March 18-19.

APRIL

American Academy of General Practice—Boston, April 1-7. Write Mac F. Cahal, J.D., Volker Boulevard at Brookside, Kansas City, Missouri 64112.

American College of Physicians—Hilton and Americana Hotels, New York, April 18-22.

MAY

International College of Surgeons (United States Section)—Shamrock-Hilton, Houston, May 1-5.

JUNE

American Medical Association Annual Convention—Chicago, June 26-30.

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Contraindications: Benactyzine hydrochloride is contraindicated in glaucoma. Previous allergic or idiosyncratic reactions to meprobamate contraindicate subsequent use.

Precautions: *Meprobamate*—Careful supervision of dose and amounts prescribed is advised. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction; withdraw gradually after use for weeks or months at excessive dosage. Abrupt withdrawal may precipitate recurrence of preexisting symptoms, or withdrawal reactions including, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, the dose should be reduced and operation of motor vehicles or machinery or other activity requiring alertness should be avoided if these symptoms are present. Effects of excessive alcohol may possibly be increased by meprobamate. Grand mal seizures may be precipitated in persons suffering from both grand and petit mal. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side effects: Side effects associated with recommended doses of 'Deprol' have been infrequent and usually easily controlled. These have included drowsiness and occasional dizziness, headache, infrequent skin rash, dryness of mouth, gastrointestinal symptoms, paresthesias, rare instances of syncope, and one case each of severe nervousness, loss of power of concentration, and withdrawal reaction (status epilepticus) after sudden discontinuation of excessive dosage.

Benactyzine hydrochloride—Benactyzine hydrochloride, particularly in high dosage, may produce dizziness, thought-blocking, a sense of depersonalization, aggravation of anxiety or disturbance of sleep patterns, and a subjective feeling of muscle relaxation, as well as anticholinergic effects such as blurred vision, dryness of mouth, or failure of visual accommodation. Other reported side effects have included gastric distress, allergic response, ataxia, and euphoria.

Meprobamate—Drowsiness may occur and, rarely, ataxia, usually controlled by decreasing the dose. Allergic or idiosyncratic reactions are rare, generally developing after one to four doses. Mild reactions are characterized by an urticarial or erythematous, maculopapular rash. Acute nonthrombocytopenic purpura with peripheral edema and fever, transient leukopenia, and a single case of fatal bullous dermatitis after administration of meprobamate and prednisolone have been reported. More severe and very rare cases of hypersensitivity may produce fever, chills, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, anaphylaxis, stomatitis and proctitis. Treatment should be symptomatic in such cases, and the drug should not be reinstituted. Isolated cases of agranulocytosis, thrombocytopenic purpura, and a single fatal instance of aplastic anemia have been reported, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity has been reported, usually after excessive meprobamate dosage. Suicidal attempts may produce lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

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POSTGRADUATE COURSES

ABINGTON

Basic Science and New Techniques in Medical Disease, Abington Memorial Hospital, first Tuesday of each month, through June, 4 P.M.; 10 hours AAGP. Contact P. M. Roediger, M.D., at the hospital.

ALLENTOWN

Continuing Medical Education TV Series, New York Academy of Medicine, at Sacred Heart Hospital, first, second, and fourth Wednesdays, through June, 12 M. Contact E. K. Sipes, M.D., 24 North 18th Street (18104).

(These courses are held at Allentown Hospital, 9 A.M.–12:30 P.M., on dates indicated; each 3 hours AAGP.)

Obstetrics and Gynecology,* February 10.

Endocrinology (Changing Concepts in Thyroid Disease),* March 10.

Dermatologic Manifestations of Systemic Disease; Misuse of Steroids,* at Allentown Hospital, April 14, 12 M.–2:45 P.M.; 3 hours AAGP.

ALTOONA

(These courses are held at Altoona Hospital, 10 A.M.–12:30 P.M., on dates indicated; each 3 hours AAGP; fee, $5.00.)

Changing Concepts of Hypertension,* February 3.

Radiology in Cardiac Diagnosis,* February 17.

(These courses 2 hours AAGP):

The Evaluation of Pulmonary Function,* March 3, (2 hours AAGP).

Obstructive Pulmonary Disease,* March 17 (2 hours AAGP).

Tuberculosis and Unclassified Mycobacteria: Current Clinical,* April 7.

Postoperative Pulmonary Complications: Prevention and Management,* April 21.

BETHLEHEM

(These courses are held at St. Luke's Hospital, 8:30 A.M.–12 M., on dates indicated; each 3 hours AAGP.)

Diabetes (Current Concepts of Etiology),* February 17; fee, $7.00.

Diabetes,* March 17.

Diabetes Treatment of Ketoacidosis and Hypoglycemia),* April 21; fee, $7.00.

JOHNSTOWN

(These courses are held at Conemaugh Valley Memorial Hospital, 10 A.M.–12 M., on dates indicated; each 2 hours AAGP.)

Intestinal Obstruction,* February 19.

Newer Antibiotics,* March 19.

(This course 7–9 P.M.):

Recognition and Management of Functional Disease,* April 28.

LANCASTER

Medical Seminars, Lancaster General Hospital and Temple University Medical Center, at Lancaster Hospital; no registration fee; luncheon, seventy-five cents; AAGP accreditation; meet at 11 A.M., each date: February 3, "Office Eye Emergencies"; February 16, "Limp: A Review of Common Causes in Children and Adults"; March 3, "Current Concepts of the Treatment of Ulcerative Colitis"; March 16, "Patients Who Trouble You"; April 7, "Advantages of Limited Gastrectomy and Vagotomy in the Treatment of Peptic Ulcer"; April 20, "The Physical Diagnosis of Heart Disease"; May 5, "The Patient with Multiple Injuries"; May 18, "Glucose and Fatty Acid Metabolism in Diabetes Mellitus." Contact Henry W. Miller, M.D., 525 North Duke Street (17602).

McKEES ROCKS

Autoimmune and Collagen Diseases; Malabsorption Syndrome,* Ohio Valley General Hospital, March 30, 9 A.M.–12:15 P.M.; fee, $6.00; 3 hours AAGP.

PHILADELPHIA

Microsurgery of the Temporal Bone, Temple University School of Medicine, first week of each month. Contact B. J. Ronis, M.D., Temple University School of Medicine, Broad and Ontario Streets (19140).

Detection and Management of Chronic Kidney Disease, at Albert Einstein Northern Division,† March 2 and 9, 9 A.M.–12:30 P.M.; fee, $10; 7 hours AAGP.

Current Concepts of Infectious Diseases, American College of Physicians, at Jefferson Medical College, February 7–10; fee, ACP members—$60, nonmembers—$100. Contact E. C. Rosenow, Jr., M.D., 4200 Pine Street (19104).

Clinical Symposium on Vascular Disease,* at Albert Einstein Medical Center, March 28–30, 9 A.M.; 15 hours AAGP. Contact A. D. Bennett, M.D., Einstein Medical Center, York and Tabor Roads (19141).

Family, Sex, and Marriage Problems in General Practice,* at Philadelphia Marriage Council on Wednesdays, March 30–May 4, 3:30–5:30 P.M.; 12 hours AAGP. Contact Martin Goldberg, M.D., School of Medicine, University of Pennsylvania (19104).

Arterial Occlusive Disease (Sixteenth Hahnemann Symposium),* at Marriott Motor Hotel, April 20–23. Contact Miss Sage Rosen, 230 North Broad Street (19102).

Postgraduate Institute—Philadelphia County Medical Society, at Bellevue Stratford Hotel, March 22–25, 9 A.M.–5:30 P.M.

The Physiologic Aspects of Cell Membranes, at Woman's Medical College of Pennsylvania, March 12, 9 A.M.–4:30 P.M.; 4 hours AAGP. Contact Bernard Siegel, M.D., Woman's Medical College (19129).

POTTSVILLE

(These courses are held at Pottsville Hospital, 11:30 A.M.–2 P.M., on dates indicated; each 3 hours AAGP.)

Diagnosis and Treatment of Lymphomas and Leukemia,* February 10.

The Treatment of Obesity,* March 10.

Current Concepts in Gout, April 14.

SCRANTON

(These courses are held at Mercy Hospital, 9:30 A.M.–12 M., on dates indicated; each 3 hours AAGP.)

Problems in Antibiotic Therapy,* February 16.

Management of Renal Failure,* March 16.

Management of Menstrual Disease,* April 20.

SHAMOKIN AREA

Symposium, Pennsylvania AGP and Lederle Laboratories, at Holiday Inn, Shamokin Dam, May 11, 10 A.M.–4 P.M.; 4 hours AAGP. Contact Harriet M. Harry, M.D., 319 South Pugh Street, State College 16801.

WILKES-BARRE

(These courses are held at Wilkes-Barre General Hospital, 9 A.M.–12 M., on dates indicated; each 3 hours AAGP.)

Problems in Antibiotic Therapy,* February 17.

Management of Renal Failure, March 17.

Ovulation Control—Stimulation and Suppression,* April 21.

WILLIAMSPORT

(These courses are held at Williamsport Hospital, 10 A.M.–3:30 P.M., on dates indicated; fee, each course, $4.00; each 4 hours AAGP.)

Medical and Surgical Aspects of Hypertension,* February 16.

Gastrointestinal Bleeding: Medical and Surgical Approach,* March 16.

Blood and Plasma Volume Expanders, April 20.

YORK

(These courses are held at York Hospital, 9:30 A.M.–12 M., on dates indicated; fee, each course, $6.00; each 2 hours AAGP.)

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Anaphylaxis and Sensitivity Reactions,* February 17.

The Pulmonary Cripple and His Daily and Hospital Management,* February 24.

(These courses 3 hours AAGP):

Consecutive Case Conference—Peptic Ulcer,* March 3.

Physiology of Menstruation and Its Relation to Contraception and the Menopause,* March 10.

Neurological Manifestations of Malignant Disease,* March 17.

Rickettsial Disease in the United States,* March 24.

Iron Metabolism and Its Disorders,* March 31.

Consecutive Case Conference—Prostatectomy,* April 7.

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* These courses sponsored by Jefferson Medical College and The Pennsylvania State University. For further course information, contact J. H. Killough, M.D., 1025 Walnut Street, Philadelphia 19107.

† For all Einstein courses, contact L. J. Zimet, Albert Einstein Medical Center, Philadelphia 19141.

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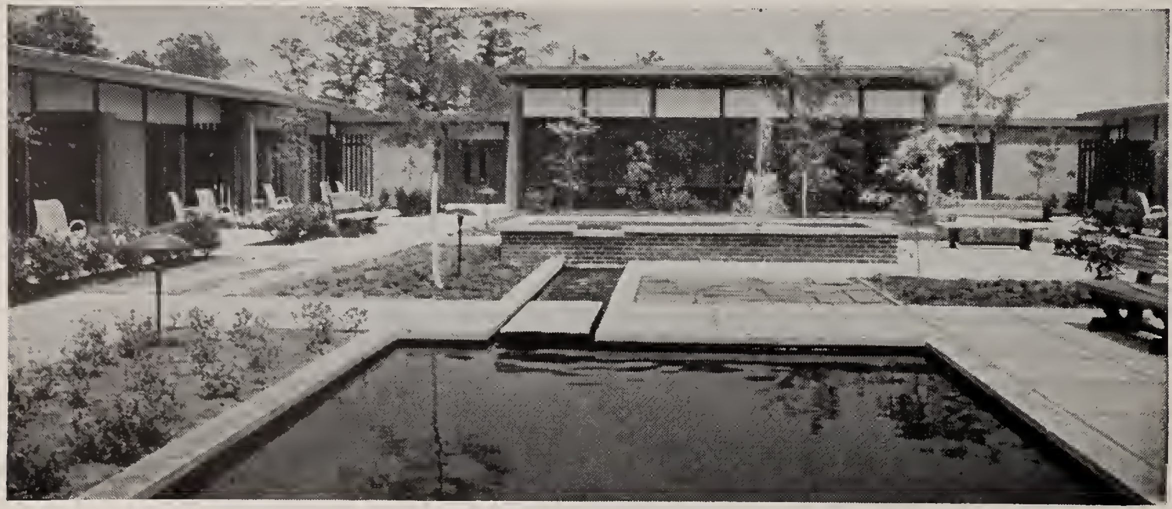

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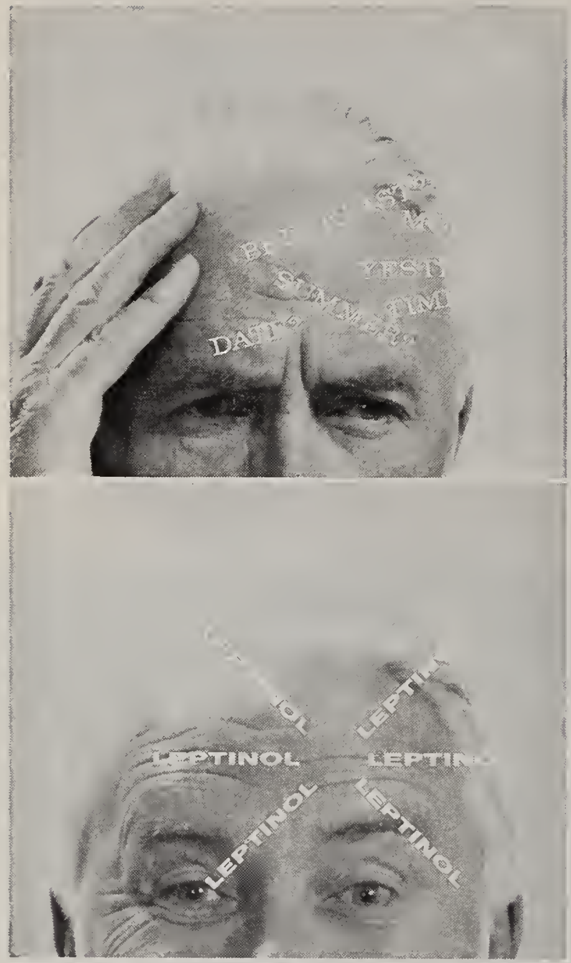

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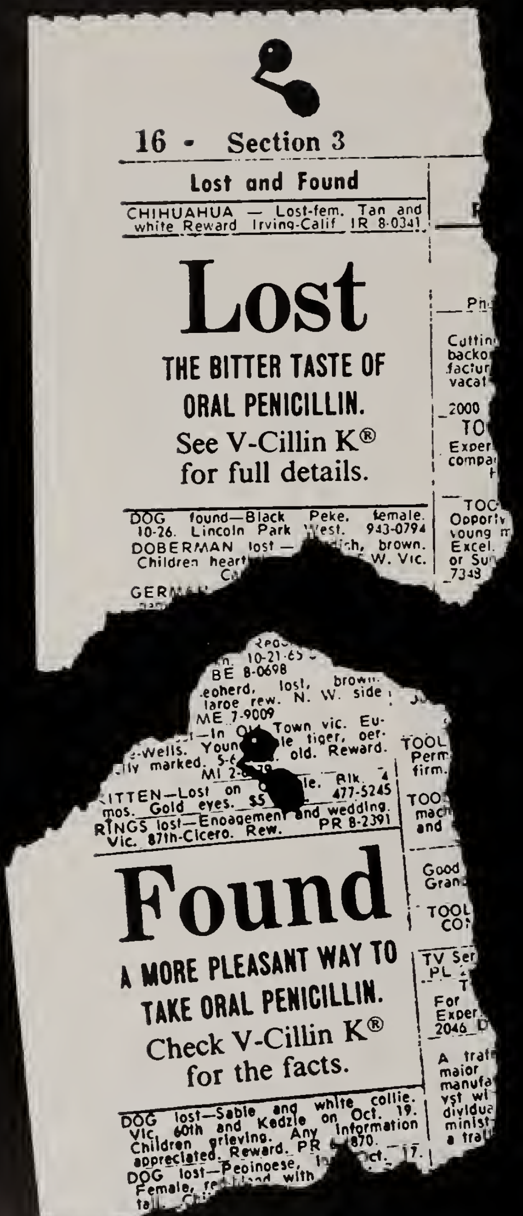

16 • Section 3

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Results of Four Antismoking Therapy Methods

Harold Graff, M.D., Van Buren O. Hammett, M.D.,
Nicholas Bash, M.D., William Fackler, M.S.,
Alexander Yanovski, M.D., and Arnold Goldman, M.D.
Philadelphia, Pennsylvania

STUDIES LINKING CIGARETTE smoking to greatly increased lung cancer incidence have changed the realities presented to the smoker. What an individual could once regard as a pleasurable pastime or a tension-reliever, he must now face as a serious threat to his well-being.

Former Surgeon General Luther L. Terry's report, published in 1963, caused a prompt and dramatic public reaction. Many techniques for giving up smoking were tried, and cigarette manufacturing company stocks dropped. Now, a relatively short time later, the furor has subsided, cigarette consumption has returned to its former level, and we hear of fewer people who have quit smoking (or who have even tried to do so). Why, in the face of known dangers, do people continue to smoke?

According to popular explanations, smoking provides satisfaction, oral pleasure, or relief from anxiety and tension (although experimentally, the latter has not yet been shown to be true).

Stumbling Blocks

Closely related to smokers' manifest desires to give up the habit, and the implied problems in doing so, are ideas which usually center around increased emotional difficulty and/or increased weight. If these notions were based on fact, snags could well be expected to develop in antismoking therapy.

Mark Twain expressed the emotional factor so well when he said, "It's easy to stop smoking—I've done it many times." Despite the implications for mental health, there has been little psychiatric interest in the hows and whys of the smoker's dilemma. In a vast literature on the subject,[2] few reports come from psychiatrists; most of the work has been done by psychologists and cancer researchers. The clinical insights a psychiatrist might offer have not been applied, in an area that could be called uniquely his own.

Our aim was to begin an evaluation of the problem by studying, (1) what seemed to us the best methods available to help smokers give up cigarettes, (2) the emotional effects of such therapy, and (3) the manifest reasons for success or failure.

Procedure

We launched the project with announcements via newspapers and radio that an antismoking clinic would be conducted by the center city YMCA, Philadelphia. All who responded were invited to attend a meeting at which general goals of antismoking therapy, and the specific aims of our project, were carefully explained. Those deciding to participate would pay a "below-cost" fee of $25.00, not necessarily in advance. Each person would be assigned (arbitrarily) to one of four therapy groups, in which he would receive a particular form of therapy once a week for ten weeks.

After this briefing, the meeting recessed so that prospective participants could make their decisions. Those entering the program became the experimental subjects; those who did not were later used as a control group. No one wishing to take part was refused. We wanted to enroll the most highly motivated people so as to compare types of therapy, while attempting to reduce the variances, between subjects, in the desire to stop smoking.

The experimental group was divided into four sections, all as nearly equal as possible as to factors of sex, age, anxiety and depression ratings, number of cigarettes smoked per day, and

---

- Dr. Graff is senior scientist at Eastern Pennsylvania Psychiatric Institute, and research assistant professor of psychiatry at Hahnemann Medical College. Also at Hahnemann, Dr. Hammett is professor and chairman, department of psychiatry, Dr. Bash, senior instructor in psychiatry, Dr. Yanovski, instructor in medicine, and Dr. Goldman, instructor in psychiatry. Mr. Fackler, formerly associated with Philadelphia's Central YMCA, is supervisor of the city's smoking and health research project.

presence or absence of the practice of inhaling. Each section used a specific therapeutic course: group therapy, hypnotherapy, lobeline drug therapy, or chlordiazepoxide drug therapy, all of which were presented as offering equal possibilities of success. Exhortative five-day therapy was not used; the experimenters believed that its method of creating a phobia was incompatible with the project's goals. In charge of each section was a therapist experienced in the particular method of treatment. One therapist saw both drug groups, so as to check for the placebo effect of the drugs.

The group therapist and the hypnotherapist were highly committed, by the nature of their procedures, to helping people quit smoking. The drug therapist approximated the attitude of a busy general practitioner dispensing drugs while giving brief supportive therapy.

Levels of anxiety and depression, tested by the Institute for Personality and Ability Testing "Anxiety Form"[3] and the Beck Depression Inventory,[4] were recorded at the project's inception, at the fifth week, at the end of formal therapy, and three months later. Also recorded were reasons for wishing to stop smoking, and for success or failure.

Each group was evaluated for the number of subjects who stopped smoking after ten weeks of therapy, and three months later. The experimental group was compared with the control group.

Population

The population available for the study (Table 1) came from a local metropolitan population of about four million; 135 responded to the public announcements by asking for additional information, and 111 attended the first meeting. Of these, 37 decided to participate. After the 37 had been assigned to groups, 3 dropped out, leaving an actual test population of 34, of whom 24 stayed with the project for all 10 weeks. Thus in each step, many dropped out, presumably because other factors outweighed their wish to abandon smoking. From the initial 135, only 18 percent completed the study.

TABLE 1

Population

Factor	*Therapy*	*Control*
Av. Age at Study	43	40
Av. Age When First Smoked	18	17.9
Sex	M, 16; F, 21	M, 9; F, 27
Cigarettes/Day	26-30	20-25
Portion Smoked	To Butt, 26	To Butt, 22
Inhale Smoke	All	All

The 74 who did not sign up were asked to send information as a control group; 35 replied, with 28 of them giving all the information requested. The control and the average participant were much alike—usually middle-aged persons who had been smoking for at least 20 years (about one and one-half packs per day). They inhaled, and "smoked to a butt." They were middle class "solid citizen" types holding responsible jobs requiring at least a high school education.

Table 2 presents the affective levels of the two groups. That they did not show depression or anxiety as a group is an expression of the norm. The segment of the experimental group having affective difficulty is interesting, in the light of the belief that people keep smoking because of anxiety and/or depression.

TABLE 2

Levels of Affect at Start

Factor	*Therapy*	*Control*
% Anxious	6.8 Nonanxious 35.0% Anxious	6.4 Nonanxious 32.0% Anxious
% Depressed	9.0 Nondepressed 19.0% Depressed	6.6 Nondepressed 14.0% Depressed

Our statistics do not distinguish between those who were highly motivated to stop smoking and those who were not.

Manifest Reasons for Smoking

Table 3 gives reasons for smoking, as stated by members of each group. Three-fourths of the members of each group said they smoked for psychological reasons. Interestingly, not all who reported tension actually tested for affective difficulty; conversely, some who claimed they smoked for nonpsychological reasons tested for increased levels of anxiety or depression.

TABLE 3

Reasons Given for Smoking

Reason	*Therapy*	*Control*
Psychological 92%		81%
Habit	22%	20%
Habit, Tension	13%	20%
Tension, Anxiety	38%	25%
Relaxation, Pleasure	19%	16%
Imitation and Sophistication 3%		16%
Unknown 5%		3%

Reasons Given for Wanting to Stop

Reasons stated for wanting to discontinue the habit appear in Table 4. A health reason was most often given in each group, although specific fear of cancer is small, despite the publicity given to the link between that disease and the smoking habit. Most reasons given were emotion-based, and any evaluation of a decision to stop smoking must include recognition of the conflict between health concerns and psychological needs for smoking.

TABLE 4

REASONS STATED FOR WANTING TO QUIT

Reason	*Therapy*	*Control*
Health Factors	76%	78%
Concern/Health	41%	53%
Cancerophobia	5%	8%
Existing Problems	30%	17%
Dirty Habit	5%	14%
Other Reasons	19%	8%

The control group, representing the portion of the population not wanting help in quitting, might reflect the emotional aspects of the need to continue. Table 5 lists reasons smokers gave for not joining the project; the investigators believe that over 50 percent are unrealistic, and reflect the dominant role of emotions in smokers' decisions.

TABLE 5

CONTROLS' REASONS FOR SHUNNING THERAPY

Apparently Realistic	38%
Schedule Conflict	30%
Program's Administrative Failure	8%
Apparently Unrealistic	51%
Fee	14%
Fears of Therapy	19%
Fears of Attending Alone	11%
Unknown	7%
Had Stopped Smoking	11%

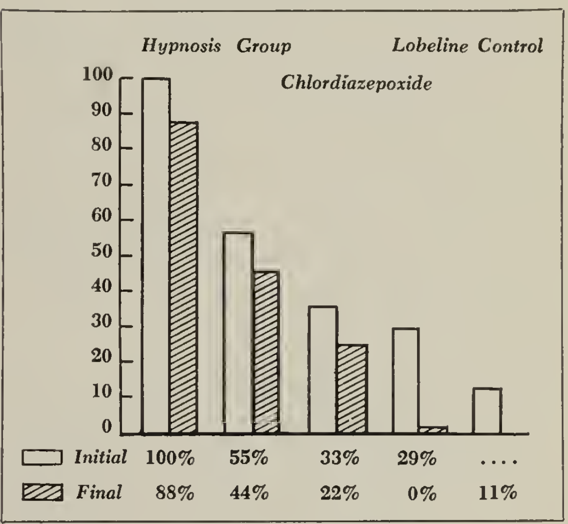
Results of Therapy

The program's results were considered an initial success (Fig. 1). Of the 24 who stayed with the program, 19 (or 79 percent) stopped smoking. After three months, three of the initial successes had resumed habitual smoking and two more were smoking occasionally, reducing the success level to 58 percent. The control success was only 11 percent.

Every subject in the hypnosis section successfully completed ten weeks of therapy; the 55 percent of the group therapy section who remained were initially successful; the chlordiazepoxide and lobeline sections reported 33 percent and 29 percent successes, respectively. Fig. 1 also shows the success rates after three months.

FIG. 1

SUCCESS OF EACH SECTION



Significantly, depression and anxiety had little to do with relative success or failure (Table 6). Several very depressed and/or anxious persons stopped smoking and did not resume it, although their affect level remained high. Three, including one who resumed smoking, showed increased anxiety, two others, less. In all remaining initial

TABLE 6

CHANGES IN AFFECT LEVELS

% Reporting	*Increased Affect*	*High Affect* *No Change*	*High Affect* *Decrease*	*Normal Affect, No Change*
Successes 100%	7%	29%	14%	50%
Relapses 100%	40%	....	20%	40%
Nonsuccesses 66%	8%	33%	17%	42%

successes, affective levels did not change. Though a cause-and-effect relationship cannot be proven, there seems to be a correlation between the resumption of smoking, and increased affect. All but one successful subject reported substantial weight gains, some as high as twenty pounds (usually due to increased appetite). On the other hand, only three who never relinquished smoking gained weight.

On follow-up, the successes reported quite promptly, the relapsers less so. Those individuals who never gave up cigarettes were quite slow in reporting, and in many cases, failed to complete the final test forms.

Seven of the eight final successes in the hypnotherapy section gave the credit to the hypnotist, while the successes in group therapy had mixed views, mentioning challenge, loss of desire to smoke, or group pressure. The failures and dropouts were quite explicit regarding nonachievement: of eleven who replied, six said that they did not receive enough support, three would have preferred hypnotherapy, and two opposed medications as a sole method of therapy.

Discussion

Such a clinical study lends itself to two lines of interpretation: did it achieve its therapeutic goal, and did it provide insight into the procedures followed? Of 135 subjects originally available, only 14 were able to stop smoking for three months—a discouraging 10.4 percent. But not so discouraging is the fact that of the 24 actually participating, 58 percent were successful. This compares well with results of other such projects, and fosters optimism for antismoking therapy, in the face of certain pessimistic reports.[5, 6] Further breakdown of results, however, shows that optimism is justified only with hypnotherapy and group therapy.

Each section's success rate compares favorably with reports of other studies using the same individual methods. Yanovski [7] reports 90 percent success with hypnotherapy. Lawton's groups [8] have an overall success of 47 percent. In the use of mixed drugs, other groups have shown lesser rates.[9, 10] Our control group exactly duplicated the self-cessation rate reported by other experimenters.[11]

Since our manifest goal was to help as many people as possible to stop smoking, the therapists' attitudes toward successes or failures in their sections contributed to the results. The hypnotherapist and the group therapist approached their sections with the desire for full success, and with plans for an interdiction against smoking. The therapist handling the two drug sections, dispensing medications like a busy family physician, confined his comments to a few questions regarding the subject's progress. His lack of optimism at the project's outset was reflected in his results.

The differences among the types of therapy brought about varying results. Each subject in the hypnosis section received ten hours of individual therapy, the group subjects, ten hours shared with others, and the drug subjects about one hour, in divisions of ten minutes or less. The therapies' physical environments were dissimilar—for example: the hypnosis section met in a private office, the drug therapy group in a public clinic (arrangements made for convenience rather than by design).

Superficially, one might conclude that hypnotherapy, per se, is better than group therapy is better than drug therapy. The consensus of participants, therapists, and observers was that the most important consideration is the psychotherapeutic nature of methods used, combined with the time and effort the therapist gives to the subject. Hypnotherapy subjects stated that alone, they could not stop smoking. Lobeline was a total failure in our study; in those where it has been successful, doubts have been raised as to its efficacy over a placebo.[12] Subjects in our study, using a drug nonspecific in relation to smoking, did better than those on lobeline, possibly due to the general psychotropic activities of the drug.

The relationship between anxiety and cigarette smoking is not clear. Eysenck et al [13] were unable to demonstrate that their smokers were more neurotic than nonsmokers.

In regard to weight gain, successful subjects who find a substitute for their oral needs are not affectively disturbed. The therapy of abolishing smoking might be more successful when combined with the therapy of controlling appetite.

• This paper, the result of cooperation between the Department of Psychiatry of the Hahnemann Medical College and Hospital, the Eastern Pennsylvania Psychiatric Institute, and the Philadelphia Central YMCA, was read before the Divisional Meeting of the American Psychiatric Association on November 21, 1964.

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Physician Smoking

'Peer Pressure' Is Bending the Hook

PHYSICIANS ARE taking literally the New Testament verse "physician, heal thyself."

At least, this is the opinion of a former executive who quit an important position in one of the nation's leading advertising agencies because of his opposition to cigarette advertising.

The former advertising man is Emerson Foote, chairman of the National Interagency Council on Smoking and Health. He expressed his opinions recently at Hershey, scene of the Second Pennsylvania Conference on Smoking and Health, sponsored by the Pennsylvania Committee on Smoking and Health of Youth and the United States Public Health Service.

"Physicians are stopping smoking," Foote said. "A national survey of physicians shows that only 22.5 percent of U.S. physicians now smoke cigarettes, down from 69 percent ten years ago.

"I WOULD THINK it is a safe guess that during the past 18 months there has been a further reduction of cigarette smoking among physicians, so that now probably only 20 percent still smoke cigarettes."

There are two main reasons why physicians have cut down so greatly on their smoking, Foote believes. They are: peer pressure is getting too great, and physicians know what happens to cigarette smokers.

"Many physicians feel rather foolish to be seen smoking cigarettes by their fellow physicians. This peer pressure is a significant factor."

The great reduction in cigarette smoking by physicians offers encouragement to those who say they cannot quit because they're "hooked."

USING THE WORD "hooked" as an alibi is bunk, Foote said. "Many doctors were 'hooked,' too, but they began quitting in droves when they really got the message."

Foote gets miffed at certain physicians with high-sounding titles, who testify at Congressional hearings that there is nothing to the smoking scare.

"No organization of scientific or medical people will so testify," Foote asserted, "not one. The tobacco people can't even get a county medical society in South Carolina to say that cigarettes are safe or that they are not dangerous."

Once a chain smoker himself, Foote believes that only the disappearance of cigarette ads will bring any great change in cigarette consumption.

"GREAT PROGRESS in reducing cigarette consumption, and hence in reducing deaths and cigarette disability, will not come until cigarette advertising has been cancelled out, either by its outright disappearance or by an act of Congress requiring a warning message which will render advertising useless or worse than useless to its sponsors."

Foote would like to see many antismoking "missionaries." He believes tremendous good can be accomplished from day-in, day-out, week-in, week-out, person-to-person communications supported by simple but powerful facts about smoking.

ACCORDING to a psychologist from Beaver College in Glenside, physicians are the keys to persuading smokers to give up the habit.

Dr. Bernard Mausner told the smoking conference that personal influence is required to persuade a person to stop smoking.

"There is one group on whom the burden of responsibility falls to create this committment," Dr. Mausner said, "the group of practicing physicians.

"One important lesson learned by the research scientist is that personal influence must be exerted by an appropriate source. If the major reason for stopping smoking is the menace of smoking to one's health, then the specifically appropriate source is the physician."

Etiology of Acute Respiratory Infections

IN RECENT YEARS, many previously-unknown viruses have been isolated from the respiratory tracts of patients suffering from various respiratory diseases. Although some of these viruses affect (1) children admitted to hospitals, (2) military recruits, and (3) medical students, most acute respiratory diseases occur in persons living at home. Little has been known of the causes of such diseases.

Between June, 1961 and June, 1964, a collaborative study carried out in 24 British centers investigated a large number of acute respiratory infections in a cross-section of the population. Children up to sixteen years of age, living at home, were studied first—adults at home or at work, later. Children in hospitals were also studied, to determine whether or not viruses recovered from such patients were the same as those found in milder cases in general practice.

Procedure

Standard laboratory methods were used for virus isolation.

Specimens—usually throat and nasal swabs—were collected from 1,888 patients; on culture, 575 were positive. Patients were examined clinically, and each one's history and diagnosis were recorded on a standard form.

Agents Isolated

A virus or hemolytic streptococcus was isolated from one patient in three below age seventeen, and from one in four age seventeen or over. Viruses were relatively more common in patients below the age of six. The pattern of influenza viruses isolated in the first quarter of each year reflected the national prevalence of infection. Para-influenza viruses of all three types appeared each winter in scattered areas, some areas apparently having sharp outbreaks lasting a few weeks.

Most laboratories isolated respiratory syncytial (R.S.) virus. Enteroviruses were isolated mainly from children under six years of age, but also to some extent from those up to ten; adenoviruses and enteroviruses were found about equally in all ages up to ten. Herpes simplex and rhinoviruses were isolated with almost equal frequency from all age groups; the pattern with influenza was the same, except that infants less than a year old seemed uninfected.

Two or three pathogens were obtained simultaneously from 25 patients; in 18, one organism was streptococcus, but each case was classified as infected by the virus isolated.

Serological typing of viruses showed that para-influenza viruses 1 and 3 were each about twice as common as type 2. Adenoviruses, types 1, 2, and 5 (the "endemic" types), were found about as often as the "epidemic" types represented chiefly by type 3. Polioviruses were rare.

The coxsackieviruses of group A most commonly found—types 2, 4, 5, 6, and 10—are associated with diseases such as herpangina. All serotypes (except type 6) of coxsackieviruses of Group B were found. Only echovirus type 6 was found in appreciable numbers.

Colds Most Common

Most patients had mild upper respiratory tract infections. The largest bloc of cases—437—was diagnosed as having the common cold; 376 had sore throat; 341, feverish cold; 179, bronchitis; 144, influenza; 127, "croup"; 103, pneumonia; 46, bronchiolitis; 42, otitis media; and 93, miscellaneous conditions. Sore throat yielded pathogens most frequently, half of which were streptococci. Isolations from patients with colds (94 of 437, or 21 percent) may have succeeded because so little virus was shed, or because tests used would not detect viruses causing the disease. Some viruses presumed to cause colds cannot be isolated in any known culture system.

Nasal blockage and running occurred in about 50 percent of the virus infections; in adenovirus infections, the nose was relatively drier—in enterovirus and rhinovirus infections, wetter. Nasal symptoms were less common in streptococcal illnesses. Sore throat was uncommon in parainfluenzal infections, and common in adenovirus, enterovirus, and streptococcal infections. Cough, common in myxovirus infections, also occurred in enteroviral and streptococcal infections, and in more than 50 percent of rhinovirus infections. Hoarseness, noted in all virus infections, was most often found in influenzal and parainfluenzal virus infections. In enterovirus infections, chest pain may have been due to myalgia, but it was generally uncommon. Wheezing, slightly more common, was part of the clinical picture of bronchiolitis caused by R.S. virus, but was also found in about 10 percent of patients infected with other viruses—except that of influenza. Febrile symptoms were common in influenzal, adenoviral, enteroviral, and streptococcal infections. Their apparent absence in R.S. infections may have been chiefly due to the patients' youth; in rhinovirus infections, their absence indicated the mildness of many illnesses.

Family Data

Analysis of family records indicated that most small children are infected with parainfluenza viruses, R.S. virus, and adenovirus types 1, 2, and 5—suggesting that these are among the first viruses to invade a family.

Report prepared by Dr. D. A. J. TYRRELL: *British Medical Journal,* August 7, 1965.

Chronic Pulmonary Disease In a Morphine Addict

A Clinicopathologic Conference

A SIXTY-FIVE-YEAR-OLD white man entered the hospital for the seventh time in March, 1964, because of confusion, tremor, shortness of breath, and increasing illness noted by his father. The patient was a bachelor who lived with his father; he had been a morphine addict for more than thirty years. In April, 1963, he had been hospitalized with backache treated with analgesics and physiotherapy. In June, 1963, congestive heart failure had been treated with digitalis and diuretics. Orthopnea and exertional dyspnea occasioned admission in February, 1964. At that time, treatment with digitalis caused weight loss of ten pounds.

The patient had formerly been a heavy smoker, but denied excessive use of alcohol. He had suffered from headache; for his severe constipation, he had habitually taken mineral oil for thirty years.

On examination at the final admission, the patient was cyanotic, lethargic, and despondent. The blood pressure was 140/80, pulse 110/min. and regular, respirations 28/min., oral temperature 98.6° F. The pupils were constricted and the cheeks sunken. No abnormalities were noted in ears, eyes, nose, or throat. The heart was not enlarged on physical examination; cardiac rhythm was regular and there were no murmurs. The percussion note was described as resonant and rhonchi were present throughout the lungs. The abdomen was soft without enlarged organs or masses. Small superficial ulcers were present over the sacrum. The lower extremities were slightly edematous and cyanotic.

Hemoglobin was 13.1 gm/100 ml., hematocrit, 43 percent, leukocyte count, 8,600 with 86 percent segmented neutrophils and 5 percent eosinophils. The urine was normal save for a trace of glucose on one occasion. Skin tests with tuberculin and fungal antigens were negative, as were smears of sputum for acid-fast bacilli. Culture of the sputum yielded an abundant growth of *Pseudomonas aeruginosa* sensitive to polymyxin, and moderately sensitive to chloramphenicol. On the eleventh hospital day, arterial blood pH was 7.4, pCO_2, 48 mm., and oxygen saturation, 88 percent. Total serum proteins were 7.9 gm./100 ml., with 2.34 gm. of albumin and 3.85 gm. of gamma globulin. Roentgenograms of the chest showed diffuse pulmonary infiltration that had been present since 1960.

Treatment included intermittent positive pressure breathing and administration of morphine (¾-1 gr. every four hours), digitalis, chlorothiazide, mercaptomerin sodium, penicillin, streptomycin, and chloramphenicol. The patient became less lethargic and began to eat, but oral temperature rose to 102° F. on the fourth day, and the patient became more lethargic before death on the sixteenth hospital day.

Factors for Evaluation

Dr. L. Murray Houser: A chest film (Fig. 1) obtained one week after admission reveals a diffuse parenchymal process throughout both lungs (most marked at the left base), characterized by a diffuse, ill-defined linear and nodular pattern. Small irregular areas of radiolucency in the left lower lung field suggest cavitation. There is marked elevation of the left hemidiaphragm. The cardiac borders are largely obliterated by the parenchymal process; however, the heart appears to be top normal in size and the aorta is prominent and calcified. There are multiple old healed rib fractures. Comparison of the current study with previous roentgenograms is extremely important in interpretation of such cases. We are fortunate in having a series for review in this case.

• Discussing this case was L. Murray Houser, M.D., associate radiologist at Pennsylvania Hospital, and instructor in radiology, University of Pennsylvania School of Medicine. The pathologist was A. Reynolds Crane, M.D., director of Ayer Clinical Laboratory at Pennsylvania Hospital, and professor of pathology, University of Pennsylvania School of Medicine.

A 1955 chest film was nearly normal. There were several calcified granulomata, and healed rib fractures were present; the heart was top normal in size. The next film, made five years later (Fig. 2), shows the beginning of the diffuse parenchymal process. The pulmonary vessels are enlarged and there is a linear fibrotic process extending from the hilar areas bilaterally. Fine ill-defined nodular densities and a reticular pattern are present. The findings are most marked at the bases. There is a slow steady progression of the process to the final admission. The roentgen findings are those of a chronic parenchymal disease with superimposed acute pneumonia.

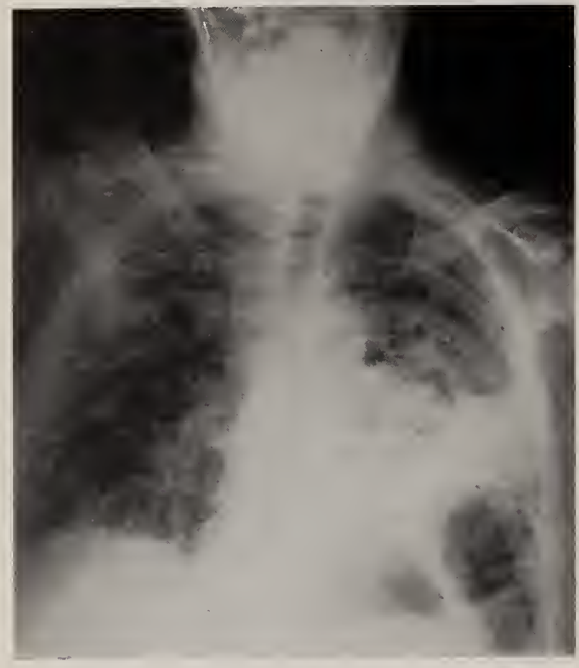

Fig. 1. Chest x-ray at final admission.

In any debilitated patient who presents a roentgen appearance such as this, tuberculosis must be considered. There is nothing in this case to indicate tuberculosis, except for the suggestion of cavitation evidenced by areas of radiolucency at the left base. Tuberculosis can have almost any appearance, however, and must be ruled out in any patient with chronic lung disease. In this case, the tuberculin test was negative and no acid-fast bacilli were recovered from the sputum. A negative skin test cannot be accepted as proof of the absence of active tuberculosis. The tuberculin may be outdated or application may be improper, such as in subcutaneous injection. Extremely debilitated patients may have a negative reaction. The unclassified myobacteria may also masquerade as tuberculosis, as do many of the fungus diseases. We have no findings, however, to indicate the presence of any of these infections.

Bronchiectasis is a chronic pulmonary disease which may present with recurrent bouts of pneumonia. This patient is a sixty-five-year-old male, who at the age of fifty-five had an essentially normal chest. His antecedent history does not suggest bronchiectasis, therefore this diagnosis is unlikely. Bronchiectasis can cause recurrent infection leading to fibrosis, of course, and could present a terminal picture such as this. More likely in this instance, I think, is a chronic bronchitis with a slower, later onset, and characterized by recurrent pneumonia following upper respiratory infection, wheezing and bronchospasm, and retention of secretions. The condition is usually associated with smoking, and aggravated by it. The patient was formerly a heavy smoker, but it is not stated when he stopped. Eventually, chronic bronchitis can lead to pulmonary fibrosis and right-heart strain. A picture such as this could be seen in mucoviscidosis. Although characteristically a disease of younger people, it can also appear in an older age group. It is unlikely, however, that a patient's chest would be normal at age fifty-five and that he would die of the disease at sixty-five.

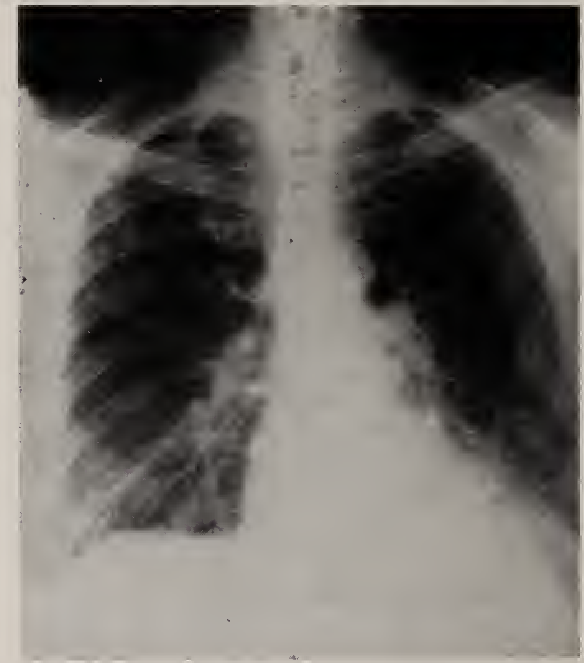

Fig. 2. Chest x-ray, four years before death.

Sarcoidosis, which can produce a fibrotic process in the lungs, characteristically starts as a fine nodulation in the lung fields with hilar adenopathy. This may clear completely or progress to a fibrotic parenchymal process. The collagen diseases may progress to this appearance, notably Wegener's granulomatosis; however, this disease has a more nodular component and undergoes cavitation. We have no other indications of this systemic process. Some of the pneumoconioses must be considered, although we have no history of exposure to any dusts. Silicosis usually begins as fine nodulation, going on to coarser nodulation with conglomerate masses and hilar enlargement, usually more marked in the upper lung fields. Asbestosis and talc exposure could present such a picture, although there usually is more pleural involvement. There is nothing to indicate berylliosis or farmer's lung disease, the latter an occupational disease with recurrent pneumonias and fibrosis—not to be confused with silo filler's disease, an acute pneumonia secondary to exposure to nitrogen dioxide.

Recurrent pulmonary emboli could cause a fibrotic process with *cor pulmonale*. We do know that some cardiac disease is present, but nothing in the history indicates pulmonary embolism.

X-Ray Evidences

From the x-ray appearance at any one time, malignancy should be considered. Lymphangitic spread of tumor such as from the stomach, lung, or pancreas could cause this apparent fibrotic appearance. While it is possible for a malignancy to be present for a long period of time and remain undiagnosed and untreated, the four-year period makes its presence quite unlikely. Bronchiolar carcinoma ordinarily is a more rapidly progressing disease. Elevation of the left hemidiaphragm suggests phrenic nerve paralysis and therefore the possibility of bronchogenic carcinoma. Fluoroscopy would be necessary to evaluate diaphragmatic motion.

No fluoroscopic notes are available and I believe that the elevation of the left hemidiaphragm is secondary to atelectasis of the left lower lobe. The histiocytoses—including eosinophilic granuloma of lung, Hand-Schuller-Christian disease, and Letterer-Siwe disease—could possibly look like this. Eosinophilic granuloma, however, ordinarily has a fine nodular and reticular pattern. We have nothing to indicate the presence of cholesterol pneumonitis, idiopathic pulmonary hemosiderosis, pulmonary alveolar microlethiasis, or hair-spray pneumonitis. Pulmonary alveolar proteinosis usually presents a more fluffy appearance with central rather than basal distribution.

Recurrent aspiration pneumonia could cause a picture such as this. Some patients with abnormalities of the esophagus such as achalasia, hiatus hernia, or a diverticulum are particularly prone to aspiration. A specific type is lipid pneumonia, seen in patients who recurrently aspirate small amounts of oil into the tracheobronchial tree. The distribution is usually basal, and while it frequently involves only one segment, it may involve whole lobes or even the entire lung, as in this case. The history of chronic use of oily nose drops or ingestion of mineral oil before retiring can usually be elicited only by direct questioning. Patients frequently neglect to tell the physician of these practices, as they have become so accustomed to using these materials that they do not regard the matter as important. They think of it much as they do of brushing their teeth in the morning. Radiologically, the findings of chronic lipid pneumonia consist of an increase in the linear markings in the lungs, with areas of pneumonic consolidation particularly at the bases. This progresses to pulmonary fibrosis and right-heart strain. One can sometimes make the diagnosis by finding oil droplets in the sputum, although the absence of them does not rule out the possibility of this condition. The material may be incorporated in the lung tissue and lymph nodes and not be recoverable. In cases such as this, biopsy is necessary for diagnosis. Characteristically, the history is a long, progressive one.

Narcotics Addict

The patient was a chronic morphine addict. Morphine, which undoubtedly was partially responsible for the patient's constipation and his use of mineral oil, would also tend to obtund consciousness and decrease the cough reflex. In the absence of findings to indicate that any other causative agents or disease are present, I believe that this patient's chronic fibrotic lung disease is secondary to a lipid pneumonia caused by the chronic use of mineral oil and to recurrent aspiration associated with a decreased cough reflex from morphine addiction. The terminal events are those of superimposed bacterial infection. The pulmonary fibrosis led to recurrent cardiac decompensation and right-heart strain.

Dr. A. Reynolds Crane: At autopsy (A64-94) there was striking alteration in the lungs of this patient, the left weighing 1,040 gm., and the right, 1,350 gm. Both lungs were the sites of numerous confluent areas of firm, gray consolidation and fibrosis, most marked in the lower lobes, but present everywhere save for the right middle lobe. On histologic examination, the pulmonary parenchyma was severely distorted by zones of dense fibrosis containing numerous circular vacuoles filled with lipid material readily stained with Oil Red O (Fig. 3).

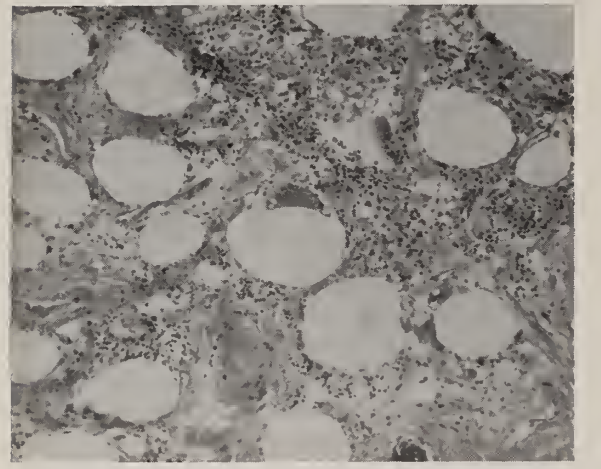

Fig. 3. Chronic lipid pneumonia, showing circular fat vacuoles, fibrosis, chronic inflammation, and giant-cell response (120x).

There was a marked chronic inflammatory cell response with numerous foreign body giant cells, epithelialization of the residual alveolar spaces, and obliterative endarteritis. Lipid deposits were also present in the hilar lymph nodes and the spleen.

The findings are those of a chronic lipid pneumonia of the type produced by oils derived from petroleum, notably mineral oil or liquid paraffin, which on aspiration become emulsified and phagocytized, and elicit a giant cell and marked desmoplastic response. In this case, morphinism not only produced constipation because of the well-known effect on sphincter tone and peristalsis, leading to habitual use of mineral oil, but also undoubtedly depressed respiration, suppressed the cough reflex, relaxed bronchial muscle, and decreased bronchial secretion, thereby adding to the retention of oil and accounting for extensive pulmonary damage. While the diffuse distribution of this lesion is less common than a focal one, a diffuse pattern may be seen in debilitated patients such as this man. In general, the animal oils, and cream, are the inciting agents in infants, while liquid petrolatum is the agent in older children and in adults.

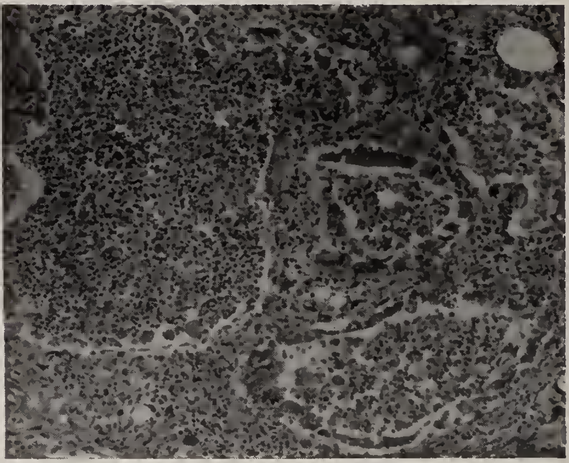

Fig. 4. Epithelialization of alveolar spaces, and acute leukocytic infiltration in an area of acute bronchopneumonia (120x).

Pathology

The pathologic process has been defined in four stages: an initial leukocytic, macrophagic, and giant-cell response is followed by epithelialization of the alveolar spaces, lymphocytic and plasma cell response, lymphoid hyperplasia, and accumulation of oil in lymphatics, arterioles, and venules; the third stage of arterial thickening, obliterative endarteritis, and fibrosis is followed by the final stage of cicatrization with residua of earlier changes. Symptoms are produced late in the disease and are usually the result of secondary infection and occasionally extensive scarring. In this patient, there was extensive secondary infection (Fig. 4), and death was due to extensive superimposed bilateral bronchopneumonia; *Pseudomonas aeruginosa* was recovered from the sputum before death. The occurrence of striking right ventricular hypertrophy further attests to the profound pulmonary vascular disturbances secondary to chronic lipid pneumonia.

In addition, the patient also had nutritional (Laennec's) cirrhosis. The liver was finely nodular and fibrotic. The significance of this lesion is indicated by the presence of splenomegaly, esophageal varices, and inversion of the albumin-globulin ratio. Severe coronary arteriosclerosis was also present; both this disease and *cor pulmonale* account for cardiac hypertrophy of 500 gm.

Final Pathologic Diagnoses

- Bilateral chronic lipid pneumonia due to mineral oil
  - Pulmonary fibrosis, extensive
  - Right ventricular hypertrophy
  - Lipid granulomata of hilar lymph nodes and spleen
- Acute and organizing bronchopneumonia, bilateral
- Laennec's cirrhosis of liver
  - Congestive splenomegaly
  - Esophageal varices
  - Atrophy of testes
- Arteriosclerotic heart disease
  - Cardiac hypertrophy
- Chronic gastritis
- Cholelithiasis
- Decubitus ulcer, left hip
- Morphinism (history)

Penn State Group's Calcium Study Aims to Benefit Astronauts

HOW CAN SCIENCE solve the problem of the loss of calcium from the bones of astronauts in space—one of the most formidable assignments of space medicine? Even more basically, how does calcium in ingested food or in tablets get into living cells? How does a clam make a shell?

Life scientists at The Pennsylvania State University have found clues indicating that mitochondria play a vital role in the transporting and use of calcium. These power plants of living cells contain many of the enzymes which convert food into energy for these cells; they supply, in molecular form, the energy the organism needs—yet they are visible in detail only under an electron microscope.

FOR FIVE YEARS, Drs. Harald and Rosemary Schraer (husband and wife)—an associate professor of biophysics and an assistant professor of biochemistry, respectively—have, with their students, tackled the riddles of calcium transport, its distribution, and its use in living cells. Much of this work has been sponsored by the National Institutes of Health, U.S. Public Health Service.

THE SCHRAERS have been evaluating the role of mitochondria in calcium transport by studying the shell glands of chickens and certain tissues of clams; both entities, constantly busy moving large quantities of calcium, are the best loci for observing calcium metabolism, the scientists explain. Eggshells are formed by the shell gland, which handles more calcium in a short period of time than does any other part of the body. In chickens, this gland deposits about two grams of calcium daily in eggshells.

How calcium is picked up from food has long been understood: it passes through the cells of the intestinal wall into the blood, which distributes it throughout the body. But how does the calcium lodge in the cells, once it reaches them?

THE PENN STATE GROUP used radioactive calcium in their "tracing" project. Chickens were injected with doses of Ca-45, which could be followed with radioactivity counters. In a matter of minutes after injection, the radioactive calcium reached all parts of the body. To ascertain where it was deposited, the researchers scraped off and crushed the lining cells of the shell-production gland. A centrifuge separated the homogenized material into several subcellular fractions.

Mitochondria, separated from other cellular parts, revealed the highest concentrations of calcium, strongly indicating their very active role in the cell's use of the mineral.

But the group still had to ask, "How does the calcium get into the cells?"

SHELL-PRODUCING glands were removed and placed in small chemical tanks, then stretched to form a "living" wall between two solutions, one of which contained calcium. If the calcium moved between the two solutions, the rate of movement would reveal the mechanism involved, the Schraers postulated.

The calcium moved—faster than it should by simple mechanical diffusion; the process could be called "energy-dependent biological pumping." The living cells in the membrane were pumping the solution through a tissue from one side to the other, the calcium moving from a lower to a higher concentration, as if water were being pumped uphill. Various complex factors may be involved in this process—including the amount of oxygen and hormones present.

The Schraers are now studying the control mechanism involved in moving calcium in the living organism: What makes the calcium transfer process occur? What molecular controls operate in the cell? Study of the clam may uncover more clues to these questions.

CALCIUM METABOLISM is as important as it is interesting, the Schraers point out: Teeth are formed at two stages in youth; why only then? Bones become brittle during senescence—suddenly, after menopause in women, more slowly in aging men—a process attributed to loss of minerals from bones, due to loss of such sex hormones as estrogen. What can prevent this mineral loss?

And to return to outer space—what can science do about decalcification in astronauts? This problem, and many others related to health—on earth, as well as in orbit or beyond—await answers to the baffling riddles of calcium transport and use, answers which the Schraers hope to help discover.

CARDIOVASCULAR BRIEFS

Digitalis Regulation In Geriatric Practice

Why is careful regulation of the administration of digitalis in older patients so important?

Elderly patients may be particularly susceptible to digitalis. Almost every known type of arrhythmia may appear suddenly (even at an early stage) and antedate anorexia or nausea. Therefore, both hospital and ambulatory patients in this group should be carefully watched at all stages. The presence of cardiac irregularities should be looked for by careful examination, or by repetition of the electrocardiogram.

Is the evidence of toxic digitalis action increasing in this group of patients?

I believe so. The possible causes are the previous use of oral diuretics, resulting in a loss of potassium, or the substitution of one of the digitalis glycosides for the whole leaf.

What is the importance of hypokalemia in older patients?

It has been known for some time that hypokalemia alone can bring about cardiac arrhythmia. This condition is accentuated when digitalis in any form is given.

What form of digitalis should be used in the treatment of older patients?

The whole leaf by mouth is preferable initially. Give 1½ grs. (0.1 gm.) of a fresh preparation twice daily and reexamine the patient at frequent intervals. A slow digitalis effect may occur after a total of 15-20 grs. has been given. It is important to individualize the course for each patient; no set dosage schedule will be found appropriate in all instances. If rapid digitalization is necessary, digoxin may be required. A maximum effect with this drug may be reached in four-six hours. Even in emergencies, it is unwise to give the full digitalizing dose at one time; one should wait at least until a reliable history of past medication is at hand. When toxic symptoms occur, digitalis should be discontinued for one to two days. The average maintenance or smaller dose should then be given once daily. Always suspect toxic digitalis action in the presence of a sudden, persisting cardiac arrhythmia (rapid, slow, or irregular heart action).

Is any other therapeutic procedure of value under such conditions?

Oral potassium therapy may be used. Often no correlation between the serum potassium level and the toxic arrhythmia will be evident. Potassium therapy may prove effective, however, when the serum level is normal or slightly below normal. Potassium chloride may be given orally in divided doses (4-6 gms. daily).

Is it possible to avoid toxic action of digitalis?

Frequent, careful observations of each patient may help. If the physician is in doubt, he may find repeating the electrocardiogram for comparison most helpful. In addition, anorexia and vomiting may precede sudden changes in cardiac rhythm.

Do elderly patients who receive digitalis show any other untoward effects?

Mental confusion may appear as a side effect in a small number of patients in this group. However, an abrupt change in the cardiac rate or rhythm is a better clue to early toxicity.

Is there a better plan of treatment for older patients that does not include the use of digitalis?

Not at the present time. Digitalis should be given whenever heart failure is recognized. We must always realize that the margin between therapeutic and toxic doses is narrow. Any sudden change in the cardiac rhythm or the clinical picture as a whole should be promptly recognized. This is only possible by careful, frequent observations of the patient.

Do you recommend the early or routine use of digitalis as a support to the heart in older patients suffering, for example, from pneumonia?

There is nothing to recommend this use of the drug.

Should digitalis be withheld in older patients following an acute myocardial infarction even if the lesion is complicated by heart block or beginning cardiac failure?

Under the circumstances, I would prefer to use the drug. I do not believe that digitalis therapy, if carefully used, would increase the risk of ventricular fibrillation, complete heart-block or Stokes-Adams attacks. In fact, in the presence of cardiac hypertrophy and coronary artery disease, the proper use of a digitalis preparation should help a failing heart to gain nourishment from an improved coronary circulation.

• Herbert Unterberger, M.D., questions William G. Leaman, Jr., M.D., Fellow, Council on Clinical Cardiology of the American Heart Association. Dr. Leaman prepared this Brief for the Council on Scientific Advancement, in cooperation with the Pennsylvania Heart Association.

Cystoangiography for Determining The Extent of Bladder Tumors

Bernard L. Wilchusky, M.D.
Julian R. Lewin, M.D.
Pittsburgh, Pennsylvania

THE THERAPEUTIC APPROACH to bladder tumor, whether surgical or radiological, depends mainly on the degree of the tumor's malignancy and the extent of invasion of the malignancy through the bladder wall or into the surrounding tissues. Cystoscopy, physical examination (including bimanual palpation under anesthesia), routine radiologic examinations, and microscopic study of biopsy specimens, all are essential to diagnosis. The physician's most valuable means of obtaining information, however, is his actual visualization of the extent of invasion.

Air or CO_2 cystography combined with pelvic angiography can help determine whether or not a malignant tumor extends beyond the bladder wall and into the surrounding perivesical tissues. This procedure is not new, having several times been reported in the literature.[3, 5-8] We performed it recently on five patients with known bladder tumors, in each case in an attempt to (1) determine the extent of the tumor, and (2) ascertain whether or not it was surgically remediable. Since our first two patients did not undergo surgery, our impressions as to the actual extent of their tumors were not substantiated; radiologically, however, it appeared to be irrefutable in both cases. Our latter three patients, however, underwent surgery, enabling us to correlate our radiological impressions with the surgery and pathology findings.

Technique

Pelvic angiography is accomplished by using the Seldinger technique: doing a percutaneous puncture of the femoral artery, and passing a catheter to a point just above the aortic bifurcation.[3] The side chosen for puncture depends upon the location of the tumor, as previously determined by cystoscopy. Passage of the catheter above the aortic bifurcation allows simultaneous opacification of both common iliac arteries and of their internal iliac branches, from which the vesical arteries arise. This permits comparison of the vasculature of the uninvolved side with that showing tumor involvement.

To afford visualization of the inner bladder wall, CO_2 or air is then injected through a standard retention catheter, to distend the bladder,[4] injection continuing until the patient complains of discomfort. Once the bladder has been sufficiently distended (as determined fluoroscopically), contrast material is injected into the aorta, and rapid serial film studies are made in the frontal projection. The catheter is then withdrawn into the common iliac artery and the patient is placed in an oblique position. The bladder is drained of any contrast material that may have entered, and replaced again, to tolerance, with CO_2 or air. Another dose of contrast material is injected into the intra-arterial catheter, which now resides in the common iliac artery, and films are exposed. Oblique views have not been consistently informative, nor have they added much to the studies that was not already visible on the frontal projections.

The distended bladder containing CO_2 or air provides excellent negative contrast against the positive-contrast-filled vessels of the bladder and the perivesical tissues.[3] Perivesical carbon dioxide, oxygen, or nitrous oxide insufflations, which also help delineate the actual thickness of the bladder wall, were not used in this series.[1, 2]

Perivesical infiltration is characterized by the visualization of tumor vessels or tumor stain beyond the anticipated confines of the bladder wall.[6] With this technique, one can visualize the

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• Dr. Wilchusky is an associate radiologist in Mercy Hospital's department of radiology. Dr. Lewin is director of the department, and is also an assistant clinical professor of radiology at the University of Pittsburgh School of Medicine.

actual tumor circulation, and determine the extent of invasion through the bladder wall and into the perivesical tissues. This method also allows for a more accurate classification or staging of bladder tumors, as well as for detection of multiple sites of involvement—occasionally unsuspected, clinically.[9, 10]

Case I

A seventy-year-old white female was admitted because of frequency of urination, of approximately eight months' duration. Cystoscopy revealed a tumor involving the left side of the bladder. A transurethral resection of this tumor was performed, with a histological diagnosis of transitional cell carcinoma of the urinary bladder. A combined CO_2 cystogram and pelvic angiogram revealed abnormal vasculature in relation to the left side of the urinary bladder, extending beyond the wall and into the perivesical tissues (Fig. 1). The patient subsequently had a course of irradiation therapy.

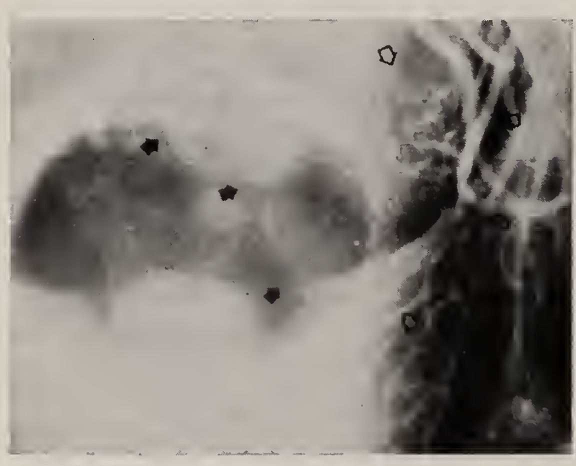


Fig. 1. Case I.

Case II

A seventy-year-old white male was initially admitted to another hospital because of dysuria and frequency, of five months' duration. Cystoscopy disclosed a bladder tumor. Transurethral resection was performed, with a histological diagnosis of anaplastic carcinoma of the urinary bladder. The patient underwent a course of irradiation therapy. Cystoscopy, two weeks after this therapy was completed, disclosed residual tumor. A combined air cystogram and pelvic angiogram revealed tumor vessels over a limited area of the left side of the bladder, extending outside the confines thereof (Fig. 2). The patient subsequently was given chemotherapy.

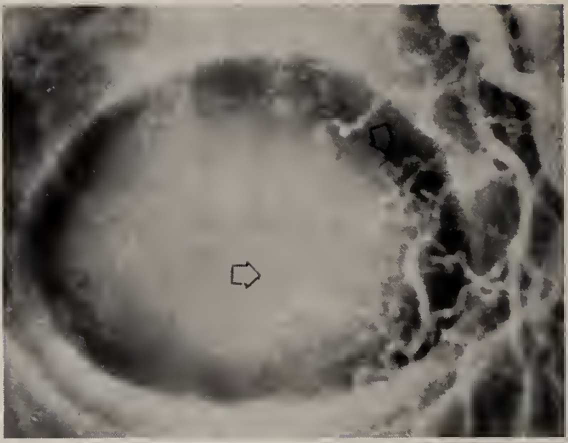


Fig. 2. Case II.

Case III

A sixty-nine-year-old white male was admitted because of dysuria and intermittent hematuria. Cystoscopy revealed a tumor in the roof of the bladder. A combined air cystogram and pelvic angiogram revealed a mass in the dome of the bladder (Fig. 3). The bladder, noted to be small, had a thickened wall. No abnormal vasculature was delineated beyond the anticipated confines of the wall of the urinary bladder. The patient had a total cystectomy and ileal loop diversion. The histological diagnosis was one of transitional cell carcinoma. Microscopic sections showed extension of the tumor through the entire thickness of the muscularis, but there was no evidence of invasion of the surrounding adipose tissue.

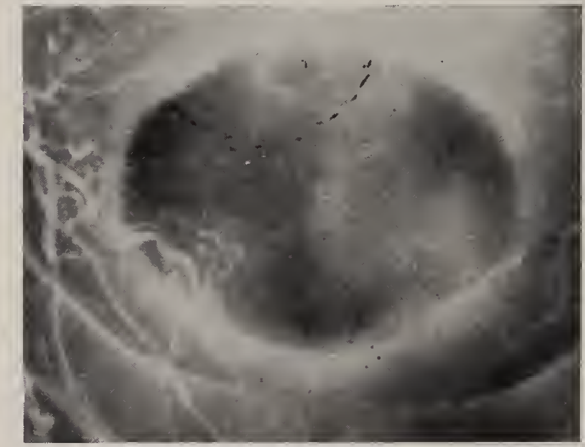


Fig. 3. Case III (tumor outlined).

Case IV

A fifty-eight-year-old white male was admitted with a history of recurrent hematuria and albuminuria with associated dysuria, of five months' duration. Cystoscopy revealed a large, solid tumor involving the left side of the bladder. A CO_2 cystogram and pelvic angiogram revealed a sizable tumor mass on the left side of the bladder, extending well down into the base (Fig. 4). Opacification of the arterial system delineated the presence of tumor vessels within the mass density. The lowermost of these tumor vessels appeared to extend well into the base of the bladder, and possibly into the left lateral lobe of the prostate. There was no definite indication that the tumor extended outside the confines of the urinary bladder, other than at the base.

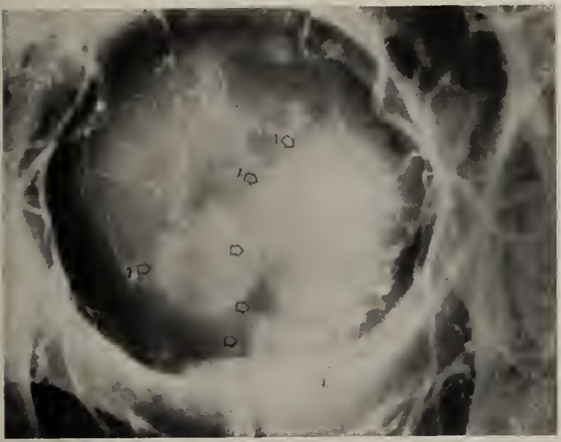


Fig. 4. Case IV.

At surgery, the bladder was found to be fixed, posteriorally and left-laterally. This connection was easily separated, however, and a radical cystectomy and ileal loop diversion were done. Pathologically, the tumor was reported as extending through the entire thickness of the bladder wall, with a fibrous reaction in the surrounding adipose tissue; it also extended into the prostate. Histologically, it was a transitional cell carcinoma.

Case V

A sixty-nine-year-old Negro male was admitted with a history of painless terminal gross hematuria of five months' duration. Cystoscopy disclosed a huge tumor in the left side of the bladder, occupying the posterior and lateral aspects of the bladder wall. Biopsy was reported as revealing a papillary transitional cell carcinoma. A CO_2 cystogram and pelvic angiogram disclosed a sizable, roughly lobulate tumor mass on the left side of the urinary bladder. The greatest density was in the dome of the bladder. The angiographic demonstration delineated numerous tumor vessels with an associated tumor stain within these tumor masses but without definite indication of infiltration outside the confines of the urinary bladder, although there appeared to be infiltration within the urinary bladder wall (Figs. 5, 6). A total cystectomy and ileal loop diversion were performed. Microscopically, the tumor was reported as predominantly an endophytic type of growth, although it did extend partially into the muscularis.

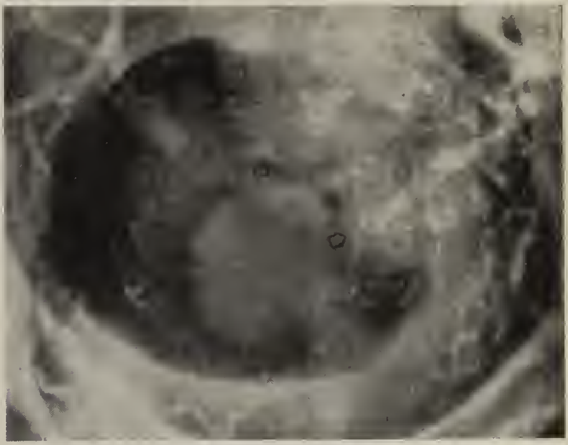


Fig. 5. Case V.

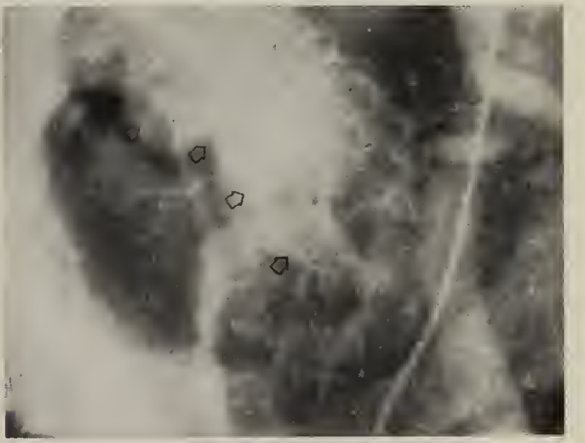
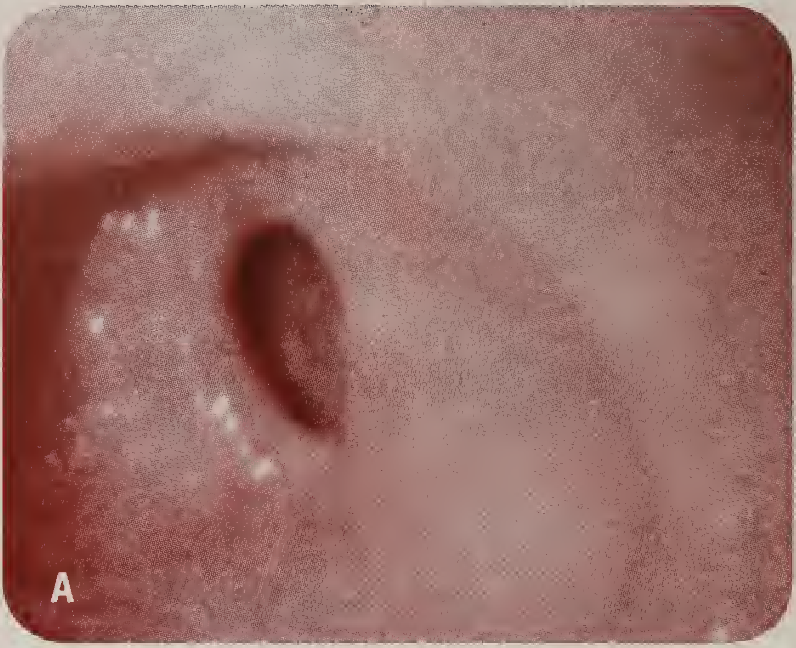


Fig. 6. Case V (oblique view).

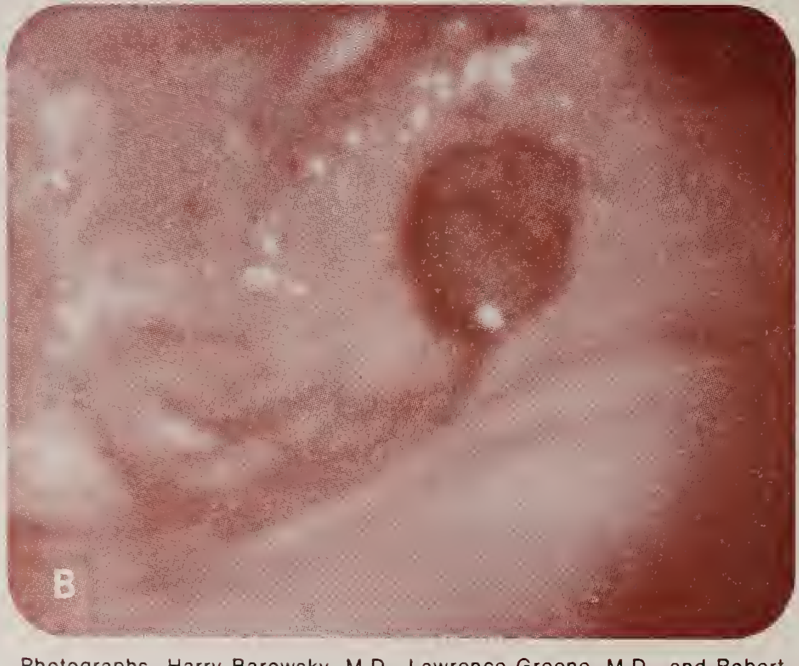
Summary

We consider cystoangiography valuable in determining the actual extent of bladder tumor, in demonstrating the actual tumor circulation, and in evaluating the tumor's extension (if any) beyond the confines of the bladder and into the perivesical tissues. Ability to determine these factors appreciably aids the urologist and the radiation therapist in deciding the optimum treatment in cases of urinary bladder neoplasia.

- For a bibliography, write the Journal.



Which Is Pyloroplasty with Vagotomy?
Which Is Pro-Banthīne?

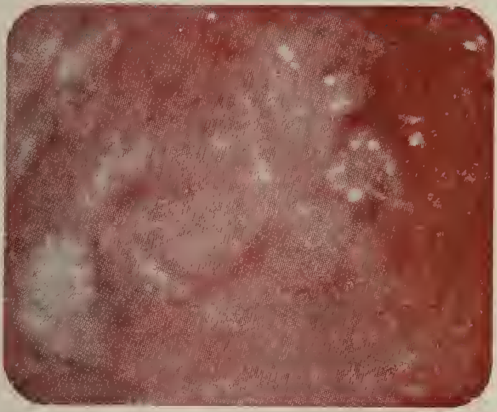


Photographs—Harry Barowsky, M.D., Lawrence Greene, M.D., and Robert Bennett, M.D., from a Scientific Exhibit presented at the Annual Meeting of the American College of Gastroenterology, Bar Harbour, Florida, Oct. 24-27, 1965.

Another example of Pro-Banthīne®

(propantheline bromide)

a true anticholinergic in action



Normal relaxed pyloric antrum; contracted pylorus (pyloric fleurette)

The true anticholinergic values of Pro-Banthīne have never been so graphically realized as they are with the recent development of fibergastroscopy and the intragastric camera.

Pro-Banthīne consistently produces complete relaxation and immobility of the stomach with a dose of only 6 to 8 mg. intravenously. This is less than half the usual dose orally.

Atropine, on the other hand, required 0.8 mg. intravenously, or twice the normal dose, to achieve a similar effect. This high dose of atropine resulted in expectedly adverse side effects.

Pro-Banthīne, in minimal dosage, produces effects similar to pyloroplasty and vagotomy without the disadvantages of permanent postvagotomy sequelae.

The intragastric photograph A is of a patient who has had pyloroplasty with vagotomy. Photograph B is of a patient given 6 mg. of Pro-Banthīne.

Indications: Peptic ulcer, functional hypermotility, irritable colon, pylorospasm and biliary dyskinesia.

Oral Dosage: The maximal tolerated dosage is usually the most effective. For most *adult* patients this will be four to six 15-mg. tablets daily in divided doses. In severe conditions as many as two tablets four to six times daily may be required. Pro-Banthīne (brand of propantheline bromide) is supplied as tablets of 15 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type ampuls of 30 mg.

Side Effects and Contraindications: Urinary hesitancy, xerostomia, mydriasis and, theoretically, a curare-like action may occur. Pro-Banthīne is contraindicated in patients with glaucoma, severe cardiac disease and prostatic hypertrophy.

SEARLE

Research in the Service of Medicine

Tiger by the Tail

Sydney E. Sinclair, M.D.
Camp Hill, Pennsylvania

MY SUBJECT IS actually "FINANCING HEALTH SERVICES" which I will discuss in the context of this panel's general theme, *Planning For Various Phases of Health Services.*

We are all aware of the considerable time and discussion that has been devoted to planning for the financing of health services by a great many individuals, including presidents of these United States, members of the several Federal and State congresses, and officers and members of our national and state medical societies. Also concerned are representatives of all components of the health insurance industry, including Blue Shield, Blue Cross, and commerical insurance companies, representatives of labor and management, citizen groups, experts in the fields of statistics and sociology, hospital administrators and their boards, and many of us as individual practitioners.

It would be a herculean task to attempt to summarize the results of the many studies done on this subject, and I have no intention to review them. Rather, I should like to confine myself to one facet of this topic, using as a subtitle, 'Tiger by the Tail' because I believe we are trying to cope with just such a beast.

BEFORE EXHIBITING this feline, let me establish the fact that financing health services is a problem, by giving one set of statistics: the total medical care expenditure in the United States. These statistics are from the U.S. Department of Commerce and H. E. W., as published in the PENNSYLVANIA MEDICAL JOURNAL, October, 1964. In 1942, two years after Pennsylvania Blue Shield began operation, the total medical care expenditure was 3.7 billion dollars. In 1962, it was 21.9 billion dollars, a sixfold increase. During this same period, average income per family increased twofold, but the purchasing power of this income decreased to 56.4 percent of the 1942 value. Hence, while John Doe's income produced twice as many available dollars to pay medical care expenses, these same dollars had so decreased in value that John Doe's real income increased by only one-half, while the medical costs rose threefold.

What elements make up total medical care expenditure? Included are hospital costs, physicians' fees, medicines and appliances, dentists' fees, and all other medical care (including ancillary professional services and nursing home care).

Is the physician solely responsible for the rise in these costs? Certainly not, but he is involved in all these elements of the cost. He has the major obligation for determining the extent of use or abuse of these services. He is in a position to offer advice regarding those items not directly under his control, by virtue of his knowledge in all of these fields. If we physicians wish to help guide the way in which medicine is to be practiced in the future, more of us must accept these responsibilities. We must accept the fact that if we choose to follow the course desired by many simply to be left free to practice medicine in the best way we know, others will decide the framework within which we will practice. Conversely, if we wish to influence the shape of this framework, we must recognize the turbulent currents in our changing society, and be ready to make the adaptations which are nature's rule for survival.

NOW, to introduce my tiger: The most pressing challenge to the medical profession is to devise a method of preserving the traditional doctor-patient relationship we conceive to be based upon the fee-for-service principle, while at the same time providing a quality of medical care which recognizes the tremendous advances in medicine; yet the profession must maintain a framework of payment that is predictable and that our patients will continue to regard as fair and reasonable.

Let me illustrate with one of the problems with which Blue Shield has been wrestling. During my tenure on the Blue Shield staff, I have been impressed, through letters, through discussions with doctors, and through questions raised in meetings, etc., that the doctors' most important concern with regard to Blue Shield is that Blue Shield has been unable to keep pace with the manner in which medicine is practiced. Twenty-five years ago, medicine was usually practiced in the hospital on a one patient-one doctor basis. One doctor admitted the patient and did all the work required for his care, except perhaps for an occasional consultation. Today, usually more than one doctor is involved in the care of a hospitalized patient. An internist, a pediatrician, or a general practitioner is often involved in the care of a surgical patient. It is the unusual admission that does not require the services of a radiologist, an anesthesiologist, or a pathologist, singly or in combination. Can all of these doctors—the medical practitioner, the surgeon, the radiologist, the anesthesiologist, the pathologist—be paid on a fee-for-service basis? Who and what should be paid when the consultant is asked to 'follow along' with the patient he has seen in consultation? Does he charge again? Is it possible to pay for all of these services at a reasonable cost? The answer I get from my patients is a clear 'No'—or is that an echo of my conscience?

• **Dr. Sinclair is Vice-President—Medical Affairs, Pennsylvania Blue Shield.**

WHAT DOES ONE DO when he has a tiger by the tail? There must be few who have considered that question, even among those with a proclivity for planning ahead. The consequences of simply 'letting go' are too horrible to contemplate. The chances of wearing him out in a tug-of-war are almost as remote as the possibility that he'll go to sleep. The best chance would seem to lie in maneuvering him into a structure so sound that he may be securely restrained. What sort of structure will hold the problem that is our tiger?

Certainly no master builder has appeared among us. I don't profess to be such a one, but would offer suggestions, in the hope that they will stimulate your thinking. There are four basic questions to be answered: What is our purpose? Upon what shall we build? How shall we use our structure? How shall we maintain the structure in good order?

First, what is our purpose? It seems to me that it is to develop and maintain a framework within which the best of medical care can be provided for all persons, at a predictable and reasonable cost.

What material is available for this framework? Mechanisms have been developed over the past thirty-five years for prepayment of health care which can very well serve as our foundation. The medical profession took the lead in establishing Blue Shield plans throughout the country, as this Society did in Pennsylvania, and supported the growth of Blue Cross plans. All this was done at a time when it was held generally that health care costs were not insurable. While this point still may be argued in theory, the growth in twenty-five years of your own Pennsylvania Blue Shield Plan from a struggling organization, at one point $87,000 in debt to this Society, to the position where it paid out over 77 million dollars for doctors' services in 1964, demonstrates a measure of confidence on the part of the public, and support by the doctors. Certainly, this confidence and support offer a sound basis for any effort on the part of organized medicine to adapt itself in keeping with the best interests of the public and the doctors.

WITHIN THIS FRAMEWORK, then, how are we to practice? Can we continue to put a dollar value on each item of service rendered? It has been demonstrated in many clinics and groups that this need not be done in order to maintain a high quality of medical care. Can we avoid it in individual practice? It would seem that just as we hope that the total effect of the care performed will be greater than the sum of the individual components of care, so must we find the means by which the cost of the total service will be less than the sum of all component charges. If we truly believe that our present system of providing care offers the best opportunity for maintaining high quality, we must recognize that a degree of cooperation among individual practitioners such as that now found only in groups, will be required. Only by developing this cooperation can we make possible the desired predictability of medical care costs.

Finally, in order to maintain the structure in good order, we must recognize the need for a group discipline, and we must recognize that in a society of free men, this can come only when the group's members are *self*-disciplined. We have the means for group discipline, in the form of the Pennsylvania Medical Care Program. It has been demonstrated in the Tenth Councilor District that this program will work. Those of you who have seen the program at work will recognize, as I have, that it works only because of the dedication of a relatively small number of doctors. They have been willing to give the time necessary to promoting the program, through making constant educational efforts with respect to their fellow-practitioners and through stimulating the equal dedication of staff personnel. It was such efforts that stimulated the exciting studies of the Hospital Utilization Project in that area.

If we are to achieve our goal, those of us in the rest of the state must accept the challenge of this demonstration. We must turn the lip-service we now give the Pennsylvania Medical Care Program into actual service on a day-to-day basis.

• This statement was prepared for a panel discussion on health service planning at the 1965 Pennsylvania Medical Society Officers' Conference in April.

✓ *MARK YOUR CALENDAR*

- **1966 PMS Officers' Conference, Penn Harris Hotel, Harrisburg, April 28-29**
- **Annual Convention, American Medical Association, Chicago, Illinois, June 26-30**
- **1966 PMS Annual Session, Penn-Sheraton Hotel, Pittsburgh, October 11-14**

Determining Community Health Service Needs

Robert M. Sigmond
Pittsburgh, Pennsylvania

A COMMUNITY'S NEEDS for hospital beds and other health facilities, and for nurses and other health personnel, are determined primarily by the patterns of medical practice of that community's physicians.

In serving a community, physicians in group practice will have different needs for facilities and personnel than [will] physicians in solo practice. The community's needs for facilities and personnel will also differ widely, depending upon (a) the proportion of physicians who are specialists and the proportion who are general practitioners, (b) the extent to which practicing physicians are in short supply, (c) the proportion of physicians who are hospital based and essentially in full-time hospital practice, formally or informally, and many other factors involved in medical practice. Health needs cannot be determined by simply projecting trends in the community's population and illness patterns. Of at least equal importance are projections of how health care services will be organized.

In this respect, health service planning does not differ from other forms of service planning. Planning for police protection may serve as an example. Even though we may know all of the essential characteristics of a community, including how much crime it may be expected to have, we cannot mechanically determine how many policemen are needed, how many prowl cars, how many jails. First, decisions must be made as to how police protection will be organized. Will policemen walk the beat or ride in prowl cars? If prowl cars, one man or two men per car? etc., etc.

IN DETERMINING NEEDS in health service or in police work, there is no single right answer applicable to all communities. Everything depends upon how the work is going to be organized. In many foreign countries, there is actually little difference between planning for police work and for health service. Some government officials decide how all police work is going to be organized, and some other government officials decide how all health service will be organized. Once these decisions are made, determinations of community needs are straightforward and relatively unimaginative.

In the United States, almost everyone is opposed to centralized determination of the organization of personal health services. As a result, any overall determination of community needs—except in the most general sense—must be highly academic, and of little value from a practical point of view.

In the United States, the organization of health services has been changing rapidly during the past few decades—[now exhibiting] many different patterns even in the same metropolitan area—and will continue to change rapidly in the future. This highly dynamic situation exists because of rapid advances in medical technology, and because any licensed physician is free to organize his services in any way he sees fit, consistent with the ethical standards of his profession. There is one practical limitation: he must conform to the rules and regulations of the medical staffs of the hospitals to which he wishes to belong. This is very important, because his freedom to organize his services means little without appropriate hospital affiliation. For example, if he cannot qualify for hospital privileges to perform brain surgery, he will be unable to exercise his freedom to perform this service.

TODAY, virtually all practicing physicians must have and do have hospital medical staff appointments. Physicians accept limitations on their freedom by hospital medical staffs because they participate in the decisions.

From a practical point of view, then, the hospitals and their medical staffs determine how health services will be organized in each community. Accordingly, only the hospitals and their medical staffs are in a position to make realistic determinations of community needs.

In our society, the key health planning agency is the individual hospital. The job of an areawide planning body is not to make plans, but rather to stimulate the planning effort at each hospital, to assist each hospital in its planning efforts, and to attempt to coordinate the planning efforts of different hospitals so as to avoid duplication and overlapping as well as health service gaps.

In particular, each individual hospital should be encouraged and assisted to plan in relation to its own determination of community needs. Most hospitals wish to plan only in relation to the insitution's needs, without consideration of community needs. Because of the prevalence of physicians with multiple staff appointments, planning on the basis of institutional needs almost inevitably leads to a degree of wasteful duplication that is no longer acceptable.

IN ALLEGHENY COUNTY, the Hospital Planning Association has provided specific suggestions to each hospital on how to determine its community's needs. Of paramount importance, each hospital is urged to establish a long-range planning committee with representation of board, medical staff, and administration to make the policy decisions necessary for determination of community needs.

• Mr. Sigmond is Executive Director of the Hospital Planning Association of Allegheny County.

The first policy decision involves the population the hospital wishes to serve—that is, what its service area or community will be. The second policy decision involves how health services will be organized for the people in this service area. In particular, this involves projection of future relationships among the people in the area, their physicians, the hospital and its medical staff, and the other health facilities serving the same area. This projection process necessarily involves detailed discussion among the medical staff, trustees, and administration of the individual hospital. Once a consensus is attained within the hospital family as to how health services will be organized, an attempt can be made to achieve policy agreement with representatives of other hospitals and various health and civic agencies serving the same population group. Finally, the hospital will publicize its policy decisions so that people in the service area can take advantage of a logical and orderly program for meeting their health needs.

This approach to determination of community health needs is perfectly straightforward, but it is not easy or simple. I can discuss the complexities involved, at great length. But the initial problem is not the complexity, but rather the lack of acceptance of the community approach by hospitals.

MOST HOSPITAL TRUSTEES, administrators and medical staffs are not accustomed to joint discussions about the future of medical practice in their own service area. Most individual hospitals and their medical staffs assume that they can justify continued community support for the hospital by provision of high quality service for the sick, whether this service is planned or unplanned, duplicating or non-duplicating, needed or unneeded from a community point of view. This appealing assumption is false, expensive, and dangerous. Most hospitals and physicians do not yet realize that failure to plan (on the basis of determination of community needs) by each hospital and its medical staff, will almost inevitably lead to loss of self-determination.

If hospitals and their medical staffs must conform to 'outside' determinations of community needs, they must also conform to 'outside' determinations of the organization of medical practice. The resulting loss of autonomy will be just as great whether the 'outside' determination is made by a voluntary or government agency.

FORWARD-LOOKING physicians on medical staffs of hospitals can help to convince trustees, administrators, and other members of the medical staff, of the importance of basing a hospital's plans on its own determination of community needs.

In Allegheny County, the Hospital Planning Association is committed to determinations of community needs by each hospital, and stands ready to help any hospital with the many technical problems involved. In line with this commitment, endorsement of individual hospital plans by the Hospital Planning Association is now limited to those which are based on determination of community needs.

• This statement was prepared for a panel discussion on health service planning at the 1965 Pennsylvania Medical Society Officers' Conference in April.

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Hospital Utilization

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Such projects can help individual medical staff utilization committees to:

- Find out where they stand
- Determine where to look
- Know what to look for
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3. He can think in terms of days that can be saved

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THIS IS THE LAST

This has been a series of articles about hospital utilization projects, in particular the Pittsburgh Hospital Utilization Project. A limited number of reprints of the entire series will be available. For copies write the Managing Editor, Pennsylvania Medical Journal, 230 State Street, Harrisburg 17105.

Dr. Robertson — "Editor's Editor"

WHEN A MAN of stature retires from a long-held office, the interested spectator may well have ambivalent feelings. It is satisfying to know that one whom you admire is to have an opportunity to step aside and contemplate his work. It is pleasing to realize that there will be a net personal feeling of satisfaction in this for one who deserves such an opportunity. But there is an unavoidable sense of loss when one knows that the work will be in other hands. When the "old order changeth," much that one would like to keep will never come into view again.

These are the sentiments aroused by the news that Hugh Robertson, M.D., is to step down as editor of *Philadelphia Medicine*. Hugh is a man with great knowledge and skill in the field of medical editing. This gives him an unusual expertise, since it is merely the frosting on a well-balanced cake of skill in medical practice and of learning in medical science. Add to this a doctor's knowledge of people, and you have an editor's editor.

Hugh's personal qualities add to our regret at his departure. He has a rare combination—individuality and strength of character, combined with an unassuming disposition,—which has made it easy for him to contribute much to medical publishing. The JOURNAL and the county society bulletins will miss his advice and suggestions.

Group Versus Solo Practice

IS A GENERAL practitioner group practice the best way to serve patients and conserve our general practitioners? After five years in solo practice and thirteen in a group, I say, "Definitely, yes!" I do not claim that it is the only way—there is plenty of need for both kinds of practice, and each physician must make his own decision as to "going solo" or joining a group. The latter course, however, offers many advantages not characteristic of the former.

Legal questions must be settled and the practical factors of office mechanics worked out, before a group attempts to practice together. Possibly the State Society, working through its appropriate existing commissions, could provide leadership and indoctrination in the group practice phase of medical economics.

The interaction of personalities is vitally important. Group practice failures stem primarily, I believe, from personality conflicts in which one or more of the partners cannot adapt to the close working relationship. But among physicians favorably disposed to group activity who have the personal qualities suited to this type of practice, successes have far outnumbered failures.

In the most successful practice groups, each individual has borne in mind that the group's main reason for being—like that of each member—is to serve the patient. Aware of this need for service, the group sets up its practice accordingly. By facilitating greater *availability*, the group can provide more nearly continuous coverage; just knowing this to be true reassures even the patient who may not need care at odd times of the day or night.

Although nearly all groups have a policy of making necessary house calls, they have found that extended office coverage reduces the number of them. When one of the group is always available in the office, the place becomes a virtual emergency room. Conversely, in communities lacking group practice, hospital emergency rooms are burdened with patients, many of whom are not in emergency status at all; often, these people are dissatisfied with the kind of care the hospital provides, which is likely to be far different from that accorded by a group member, in an office geared to skilled, personalized, concerned care of the patient.

When a physician-partner knows he is on call for night, weekend, or holiday service, he accepts the assignment without an inclination to be defensive to requests for attention. I deplore the policy of some physicians—in solo or in group practice—of refusing to see a patient in "off hours," and of simply sending him to the hospital with a brusque, "I'll see you in the hospital tomorrow." This is a disservice to the patient and to the overall image of the medical profession.

The advantages of group practice's availability were pointed up in results of a recent survey, when patients stated that "always being able to get a doctor quickly" was the most pleasing factor in the doctor-patient relationship. On the other hand, a high percentage of those questioned indicated that the most *dis*pleasing factor was in finding medical care "not available enough—can't get it when you need it." The same study revealed that people are chiefly concerned with the physician's professional competence, rather than with his personality, his bedside manner, or his relationship with the patient—a principle applying to solo as well as to group practitioners. I believe, however, that in a group, competence is heightened by the partners' opportunities to learn from one another, to avail themselves of postgraduate training, to pool knowledge and opinions, and to be able to provide ancillary personnel to facilitate better diagnosis and care.

Competent, consistent coverage unquestionably benefits the patient. But in the group set-up, each physician also benefits: his colleagues "cover" for him when he is off duty, so that he has more time for family relationships, vacations, community and cultural activities, and that most important tranquilizer—an occasional period of doing *nothing*. Doctors could well heed some of the advice they give patients: avoid being chained to a job, allow time for relaxation and recreation, and participate in activities that can act as a balance wheel for the pressures of everyday, nose-to-the-grindstone pursuits.

Group practice advantages are distinct inducements to young medical school graduates. The new physician wants to avoid a tremendous investment in an office and all its necessary appurtenances at a time when he is "broke" or in debt after years of preparation. He shies away from the long, slavish hours which he thinks solo practice demands of a general practitioner. Entering a group set-up, the recent graduate can avoid these stumbling-blocks; he can avail himself of study and research opportunities, and can learn from his more experienced associates; his wife will probably take much more kindly to his being part of a group than she would to his engaging in the much more confining, demanding role of the solo practitioner.

Ideally, we would have such a good supply of physicians that all demands for solo and for group practices could be met. But this is not the case, nor will it be, in the immediate, forseeable future. With the physician shortage an acute reality—especially in the general field—and with public acceptance of group practice sanguine and widespread, I believe that well-planned practice arrangements by congenial, thoroughly informed, cooperative groups of physicians can answer community health-care needs and provide opportunities for each doctor's self-improvement and personal gratification.

Edward J. Kowalewski, M.D.,
Akron, Pennsylvania.

In the Incoming Mail

Advocates Family Planning

■ In your December, 1965, issue, you published a list of *Family Planning Information Sources* which you said was "for the information of practitioners in this state." In view of the year-old policy of the AMA, as passed at its meeting in December, 1964, I feel that this is a genuine service in helping physicians carry out their obligations relating to family planning.

The AMA policy states that the need for population control "is not only a matter of responsible parenthood, it is a matter of responsible medical practice." Another part of the policy says that "physicians must be prepared to provide counsel and guidance when the needs of their patients require it, or [to] refer them to appropriate persons."

The statement then goes on to say that "the prescription of child-spacing measures should be made available to all patients who require them, consistent with their creed[s] and mores, whether they obtain their medical care through private physicians or tax- or community-supported health service."

You list twenty sources for the information the AMA has suggested physicians should supply, whether privately or in tax-supported health institutions—information which couples have the right to obtain, whether they can pay for it or not. It is interesting and provocative to see that of the twenty sources, fourteen are Planned Parenthood clinics run and financed by a lay board as a form of charity, and only two are located in hospitals (one in Pittsburgh and one in Allentown). Two more are church-affiliated, and one is run by the Visiting Nurse Association.

Pennsylvania is lagging far behind many other parts of the United States in making family planning information available to the indigent—the segment of our society that needs this medical service most acutely. After several years of effort, our secretaries of welfare and of health were prepared to sponsor a bill in the state legislature which would enable the recipients of welfare payments to receive this help. The program was blocked because of the opposition of the chairman of the House appropriations committee, who imposed his religious beliefs on the entire state of Pennsylvania. The *Philadelphia Evening Bulletin* referred to this incident as "nothing short of legislative blackmail," because the chairman in question achieved his purpose by threatening to withhold welfare department funds if the program were adopted. Such actions are contrary to the basic principles—approved by the Roman Catholic church itself—of religious liberty, and the immorality of any one religious group's attempting to impose its views on others.

Is it not time for Pennsylvania doctors to become more active in the effort to provide family planning information for all who need it, in places where all other medical services are rendered—hospitals, or physicians' offices? North Carolina is one of the more advanced states in this respect: every county will pay the hospital $20 per day for any woman who desires to be sterilized; in four counties, officials even use tax funds to pay surgeons $50 for each voluntary sterilization done for the poor. Two Virginia and two Michigan counties have similar policies.

The Roman Catholic church has declared itself

• Opinions expressed in contributions to this Journal are those of the writers, and do not necessarily reflect the views of the Pennsylvania Medical Society.

in favor of voluntary and responsible parenthood—*methods* of controlling family size being the only problem; the federal government is sponsoring birth-control programs with a grant of $5.5 million; and hundreds of county and city public health and welfare departments are giving this service all over the country.

So what is Pennsylvania waiting for?

H. Curtis Wood, Jr., M.D.,
Fort Washington.

[The state Department of Public Welfare announced in December that it will make family planning information and medical services available to public assistance recipients requesting it.—The Editors]

The Cadaver Shortage

■ I have seen the editorial on the "cadaver shortage" in the December issue of the Pennsylvania Medical Journal, [and] I am very much pleased with it.

Thank you for your interest in increasing the supply of cadavers for use in our medical and dental schools. You will be glad to know that we have already had a few inquiries as a result of the editorial.

John Franklin Huber, M.D.
Secretary,
State Anatomical Board.

Thank You, Dr. Friedman!

■ I want to congratulate you on the many favorable changes that you have instituted in the Pennsylvania Medical Journal. It is really becoming an outstanding publication.

Paul S. Friedman, M.D.,
Philadelphia.

Coronary Sclerosis Theory

■ In the *Virginia Medical Monthly* for October, 1960 (volume 87, page 578), and in the *JAMA* for December 10, 1960 (volume 174, page 1994), I suggested the following theory:

The importance of the seven-day periodicity of inflammatory disease is stressed in Leviticus, chapter 13, in Numbers, chapter 12, verse 14, etc. The Hebrew phrase *MAKOH SHEVA* in Leviticus, chapter 26, verse 21, points toward the neoplastic and degenerative conditions seen to develop following interruption, by means of antibiotics, antihistamines, and corticosteriods, of this seven-day periodicity.

The data published on page 25 of *Smoking and Health* (Department of Health, Education, and Welfare, 1964), appear to corroborate my theory. I regard them as an indication that the book's conclusions are incorrect. Tobacco has been smoked since [long before] Columbus discovered America; the increase in the incidence of neoplastic and degenerative disease has risen sharply since the newer drugs have appeared!

Thirteen years ago, I observed that most patients who had received penicillin and/or other antiinfective drugs showed a tendency to accelerate in arteriosclerotic changes, especially in their coronaries. The absence of the usual symptomatology in these cases appeared to necessitate a new classification. I use the term "coronary sclerosis with spells of coronary insufficiency—penicillin heart," in making reports to insurance companies, to the Veterans Administration, and to welfare agencies, as well as in making out death certificates. This term is accordingly here to stay!

The following symptoms appear to be frequent: asthenia (accentuated during the spells); dyspnea—of varied intensities—occurring spontaneously, and after exertion; abdominal distension, with discomfort; and neuralgias, especially in the chest (but without the characteristics of angina pectoris). The following diagnostic and therapeutic procedures which I have developed have been useful in identifying and treating this condition:

(1) Pulsus alternans, which can be determined exactly by noting the alternans behavior of the pulse pressure. In severe cases, I noted the amplitude to vary between 5 points and over 40 points. Of course, pulsus alternans has always been regarded as a sign of impending death. In most of the cases, electrocardiographic findings were negative; the false feeling of security occasioned by the normal EKG has already caused several deaths.

(2) When 0.1 gm. of aminophylline is given sublingually, relief of the symptoms occurs shortly.

(3) This tablet also causes flushing of the face, almost immediately.

(4) Stabilization of the pulsus alternans type of pulse pressure took place within a short time after the tablet was taken. Substantial reduction of pressure—especially the systolic—occurred in some of the cases with hypertension, suggesting that the hypertension was caused by resistance to the coronary blood-flow; in these cases, treatment of hypertension in any way other than by coronary vasodilatation is obviously dangerous, and may cause death by myocardial ischemia.

Each of these patients was given a supply of aminophylline tablets, 0.1 gm., and instructed to carry them at all times, placing a tablet in his mouth whenever he became short of breath or was not sure about his heart. Enteric-coated tablets of this drug were also given, one tablet to be swallowed at bedtime as long as the emergency continues; in some cases, plain tablets gave better results, when taken sublingually. Vitamin B_1 tablets, 1 mgm. t.i.d., pc. sublingually, were also found to be useful in the treatment of penicillin heart. In addition to their beneficial action on the coronary circulation, they are believed to improve the splanchnic circulation, thus breaking another link in the vicious circle of coronary insufficiency.

Leo I. Hallay, M.D.,
Fort Blackmore,
Virginia.

What You Need to Know About Pennsylvania's 'Medicare' Program

■ This is the state Department of Public Welfare's summary of the principal provisions of Pennsylvania's new medical assistance (MA) program. Effective January 1, the program was made possible by the federal medicare law and in this state will cover the "needy" of all ages. This new program embraces and supersedes the old state Medical Assistance for the Aged, and Purchase of Hospital Care programs.

Who is eligible?

All persons receiving public assistance grants.
All medically needy persons.

Who is medically needy?

A medically needy person is one who has sufficient income or assets to pay for his basic maintenance but does not have sufficient resources to pay for his medical care. In figuring this the Department of Public Welfare exempts:

1. $2,000 annual income for basic maintenance for a single person.
   $2,500 annual income for basic maintenance for a two-person family.
   $750 each for basic maintenance of additional dependents.
2. Medical expenses for care not provided under the MA program.
3. Home, household furnishings, personal affects, and car.
4. Insurance—cash surrender value up to $500 *each.*
5. Other property assets with a combined net value up to $2,400 for a single person, $3,840 for a family.

What services does MA provide?

For medically needy persons:

1. Inpatient hospital care for up to 60 days in a benefit period at average per diem costs up to $25 per day.
2. Post-hospital care in private nursing homes for up to 60 days during a year at rates ranging from $160 to $220 monthly, depending on the nursing home's classification.
3. Visiting nursing service at home, as prescribed by a physician, at cost up to $4.00 per visit.
4. Post-hospital care provided by the hospital in the home, at cost up to $5.00 per day.
5. Public nursing home care for persons over age 21, at average per diem cost rates.
6. Care in mental institution for persons age 65 or over, at average per diem cost rates.

(The income and property limits for public nursing home care and care in a mental institution are different from and lower than those for other types of care.)

For persons receiving public assistance grants:

All of the above services *plus* the services of dentists, clinics, and physicians for care outside of a hospital and medicines and appliances prescribed in the course of such care.

Questions and Answers About MA

Are relatives not living with the applicant liable for payment for his medical care?

Only persons under 60 who are spouses and parents of minor children are required to contribute to the cost of medical care provided [if] they are financially able to do so.

Are there liens on property?

No repayment is required from property for MA for which the person was eligible and no liens are taken on property.

Where is application for MA made?

Eligiblity for MA is determined by the county board of assistance. Persons receiving public assistance grants are automatically eligible for all the services described unless they have resources like Blue Cross or Blue Shield to meet them.

Medically needy persons must apply to the local county board of assistance.

How is MA financed?

The federal government pays 54.3 percent of the expenditures for persons who are getting a federal category of assistance or who meet certain federal requirements. The state must meet the full cost of medical care for other persons. State costs will be about 52 percent of total MA expenditures.

What are the federal requirements for the progressive development of a state's MA program?

To receive federal medical assistance funds after July 1, 1967, the state's Medical Assistance Program must, effective no later than July 1, 1967, provide for payment of the following:

1. The "reasonable cost" of inpatient hospital care, as defined in federal regulations now being developed;
2. Physicians' services to the medically needy, in the hospital, the home, and the office;
3. Physicians' services to public assistance recipients in the hospital (payment is now provided for physicians' services to public assistance recipients in the home and office);
4. Outpatient hospital services to the medically needy (payment is now provided for outpatient hospital services to public assistance recipients);
5. Other laboratory and x-ray services, as required by federal regulations now being developed;
6. "Skilled nursing home care," as defined in federal regulations now being developed, and to the extent not now provided in the Medical Assistance Program.

MEDICAL SOCIETY NEWS

Judge Kessinger Featured Speaker at Officers' Conference Dinner

WIDELY KNOWN to audiences in every state and several foreign countries, Judge Harold C. ("Sam") Kessinger, three-term New Jersey jurist, will be guest speaker for the annual Officers' Conference dinner on April 28.

JUDGE KESSINGER

Since appearing on the CBS-TV documentary, *An American Jester,* in December of 1963, Judge Kessinger has been in constant demand as an orator, raconteur, and entertainer. Newspapers from Miami to Anchorage have lauded his eloquence and wit, one critic characterizing him: "droll as Will Rogers and dynamic as Wendell Willkie."

AFTER WORKING his way to obtain an education at Blackburn College, Northwestern University, and the University of Chicago, Judge Kessinger embarked on a career which has included experience as an editor, a publisher, an educator, a bank president, a civic leader, and a world traveler.

As after-dinner speaker on April 28, he will present, "The World's Greatest Adventure."

Hospital Relations Appointees Named

STATE SOCIETY PRESIDENT William B. West, M.D., has appointed the following physicians to membership on the Commission on Hospital Relations of the Council on Medical Service: J. Eugene Ruben, *chairman* (Philadelphia); Raymond C. Davis (Susquehanna); Richard E. Deitrick (Allegheny); Harry D. Lykens (Centre); and John F. Whitehill (Mifflin-Juniata).

A PRINCIPAL function of this commission is to establish liaison with the Hospital Association of Pennsylvania. The appointments, effective as of December 28, will terminate upon adjournment of the 1966 House of Delegates.

Breakfast-Time Discussions Set for Spring Session

IN MORNING meetings on April 29, beginning with an 8:30 breakfast, Officers' Conference participants will discuss subjects pertinent to their respective areas of medical society interest and responsibility. Present plans call for groups to be organized according to these categories:

(1) Presidents and presidents-elect, and branch society presidents; (2) secretaries (county and branch); (3) editors; (4) governmental relations personnel.

(5) Medical service; (6) public service; (7) scientific advancement; (8) hospital administration; (9) attorneys; and (10) specialty societies.

A State Society officer, together with a staff member, will present an agenda and guide the discussion in each group.

Have You Heard?

★ For every 10,000 people in the nation, there are 11 lawyers and judges, 12 doctors, 37 telephone workers, 40 gasoline station attendants—and 130 civilian employees on the federal payroll.

★ Nonurban Pennsylvania physicians volunteering for preceptorships totaled 400.

★ More than 19,000 Americans are killed annually in accidental falls; about 12 million sustain injuries serious enough to require medical attention or temporarily restricted activity.

★ Suicide deaths throughout the United States are most common in April. In Pennsylvania, more of them occur on Monday than on any other day of the week.

★ The average American spends less than one cent, out of each "spendable" dollar, for drugs.

OVER THERE—Among M.D.'s briefed before departing January 4 to give sixty days' service under Project Vietnam is H. Robert Davis, Jr., Boiling Springs (seated, center). To his right is Edwin W. Brown, Jr., M.D., project director.

PMS Member H. Robert Davis In Voluntary Vietnam Duty

HALFWAY through a professional tour of duty in war-ravaged areas is H. Robert Davis, M.D., Boiling Springs, who with seven other physicians from throughout the United States left for Vietnam January 4. With his M.D. colleagues, Dr. Davis is spending two months ministering to civilians injured in the war or suffering from natural ailments.

Of the more than 15,000 M.D.'s in Pennsylvania, Dr. Davis was the lone volunteer for a tour of duty in Vietnam.

A NATIVE of Harrisburg, Dr. Davis received his medical degree from the University of Pennsylvania School of Medicine, where he was president of his class. He is secretary of the Cumberland County Medical Society.

Dr. and Mrs. Davis, married nearly twenty years, have two daughters and a son.

Physicians Must 'Pay Up,' Under Social Security's Big Umbrella

NOW THAT MEDICAL doctors are "covered" by Social Security, they are finding the usual government gobbledegook surrounding their "cover charges." The State Society is competing with the word-wilderness by providing understandable materials to assist doctors as they prepare their income tax returns.

The mid-January *Newsletter* carried a detailed explanation of regulations affecting the M.D., and a clip-out "Request for Statement of Earnings" to enable him to ascertain what previous credits may be on record at Social Security headquarters.

FURTHER INFORMATION on physician obligations and benefits will appear in the March issue of our new Journal, "PENNSYLVANIA MEDICINE."

Governor's Commission Proposes State Agency for Hospital Planning

IN A REPORT to Gov. William W. Scranton, the Professional Study and Finance committees of the Governor's Hospital Study Commission have recommended legislation to establish a permanent statewide coordinating and planning agency for hospitals and health services. Members of the agency would be appointed by the governor and would function under the state Department of Public Welfare.

STATE SOCIETY members serving on the Professional Study Committee are: Drs. Irwin H. Breslow, Pascal F. Lucchesi, and Charles M. Thompson, all of Philadelphia, and Drs. Hamblen C. Eaton, Harrisburg, and Charles L. Wilbar, Jr., Camp Hill.

Dr. Appel Speaks at Lancaster Nursing School Groundbreaking

JAMES Z. APPEL, M.D., AMA president, was the principal speaker at groundbreaking ceremonies for a new School of Nursing and a nurses' residence, to be constructed at General Hospital in his home town, Lancaster.

At a cost of $2,059,000, a seven-story residence with an adjoining two-story school building will be constructed, enabling the hospital to increase student nurse enrollment to 234. Completion is expected in early 1967.

TO HER HEALTH—One-hundred-year-old Mrs. Frances B. Nissley, Mount Joy, receives the State Society's Centennial Award in recognition of a long life tempered by careful attention to health matters. Mrs. Nissley, one of fifty-five centenarians whom the PMS honored during 1965, still lives in the old stone farm house she first moved into in 1884 as a bride of one year.

WASHINGTON REPORT

Medicare Will Help Millions Who Are Not Needy: Chamber of Commerce

A PANEL OF leading businessmen has warned of the dangers of relying too heavily on government for administration of health and retirement plans, the American Medical Association Washington office reports.

Such government programs should be used to help the sick, disabled, and aged, the panel said, "only if voluntary and private means . . . cannot adequately meet society's needs . . .

"HEAVY RELIANCE ON government can discourage the experimentation and innovation needed to solve our health and retirement problems. Such reliance also can narrow the freedom of choice of people who prefer to meet their needs in their own ways."

This statement was a highlight of a 263-page report by the Task Force on Economic Growth and Opportunity of the U.S. Chamber of Commerce.

THE REPORT CITED medicare as an example, as follows:

"In an attempt to help low-income aged people obtain health care at little personal cost, medicare was attached to the tradition-bound Social Security program. As a result, medicare will help millions of Americans who are not needy by any stretch of the imagination.

"It will be financed by the Social Security payroll tax, a highly regressive tax that places heaviest burdens, in relation to income, on low-income workers and on low-income consumers who pay higher prices to absorb the cost of payroll taxes levied on employers."

Measles and a Government Slowdown

THE AMA in Washington also reported that measles incidence in 1965 was the lowest in recent years.

Through the first 49 weeks of 1965, 256,443 measles cases were reported, far below the average of more than 400,000 annual cases since 1960.

HEW SECRETARY John W. Gardner said 1966 would be a "slowdown year" in his department because of the initiation of many new programs.

30TH ANNUAL POSTGRADUATE INSTITUTE
PHILADELPHIA COUNTY MEDICAL SOCIETY

March 22-25, 1966 ■ Bellevue Stratford Hotel

Tuesday, March 22

PHYSICAL EXAMINATION OF THE HEART
Louis A. Soloff, M.D., *Moderator*

INFLAMMATORY JOINT DISEASES
Daniel J. McCarty, Jr., M.D., *Moderator*

Wednesday, March 23

NEWER ADVANCES IN VIRAL DISEASE
Harold S. Ginsberg, M.D., *Moderator*

PERIPHERAL VASCULAR DISEASE
Brooke Roberts, M.D., *Moderator*

Thursday, March 24

CURRENT MANAGEMENT OF DIABETES
Charles R. Shuman, M.D., *Moderator*

ADVANCES IN GYNECOLOGIC ENDOCRINOLOGY
Denis M. Abelson, M.D., *Moderator*

Friday, March 25

ADVANCED RENAL DISEASE
Laurence G. Wesson, Jr., M.D., *Moderator*

DISEASES OF THE COLON
Frank P. Brooks, M.D., *Moderator*

● Technical and scientific exhibits; outstanding speakers ● Accepted for credit by the American Academy of General Practice ● Registration fee: $40 for entire program, $10 for each individual day ● Address inquiries to 2100 Spring Garden Street, Philadelphia 19130.

Physicians' Placement

Practice Opportunities In Pennsylvania

■ **From the State Society's register of communities seeking additional medical coverage, the Journal publishes informational items in alphabetical order, as space permits. For additional information, contact the Physician Placement Service, Pennsylvania Medical Society, 230 State Street, Harrisburg 17105.**

SUSQUEHANNA COUNTY

Brooklyn-Harford-Kingsley Area: Located 35 miles north of Scranton, south of New Milford and west of Route 81, these three communities with a combined population of 7,000 form an area (bisected by Route 11 at Kingsley), needing additional medical coverage. Trade-area population estimated at 30,000. One physician practices in the area. Nearest hospital is located at Montrose. Housing and office space available in area. Churches of most denominations located nearby. Shopping centers, good schools, most service and civic clubs. Golf courses, swimming, etc. Skiing becoming an important winter sport.

Thompson: Located on Route 171, 35 miles north of Scranton and 25 miles south of Binghamton, New York, Thompson is a focal point of the Susquehanna Area, which includes southeastern Broome County, New York, and eastern Susquehanna County and northern Wayne County, Pennsylvania. The population of this area is 25,000. There are four physicians in Thompson and no others within 15 miles. They are actively seeking additional physicans. New 50-bed hospital serving a 20-mile radius; ten physicians on staff. Staff privileges, offices, and housing facilities available. Variety of industries provides steady employment. Physicians can supplement incomes at schools and summer camps. Fifteen churches represent most major denominations. All major service clubs active. Five jointure school systems with total of 6,000 students. All recreational and cultural activities available in area.

TIOGA COUNTY

Liberty: Located on Route 15 near the county line, almost due south of Mansfield, Liberty has a population of 270, with a trade-area population of nearly 4,000. Nearest hospital is located in Blossburg (10 miles). Housing and office space available. Physician could supplement income as school physician. Several churches in or near the community represent most major denominations. School is jointure; student population: 710. Located near "Pennsylvania's Grand Canyon"; hunting, fishing, scenic landscapes, and the college at Mansfield (20 miles) provide some of the area's recreational and cultural opportunities.

Westfield-Sabinsville Area: Located in the northwest corner of Tioga County on Routes 49 and 349, Westfield and Sabinsville have a combined population of approximately 2,000, with a trade-area population of approximately 6,000. Two doctors, one of advanced years, currently serve this area. Nearest hospital is located at Wellsboro (28 miles). Housing and office space available. Fifteen churches in the area represent all major denominations. School is jointure; student population: approximately 1,400. Swimming pool at Elkland (13 miles), golf course at Wellsboro (27 miles), hunting and fishing.

WASHINGTON COUNTY

Canonsburg: Located on Route 980, southwest of Pittsburgh and almost directly north of Washington, Canonsburg has a population of 11,768, with a trade-area population estimated at 30,000. Canonsburg is served by 11 physicians. Staff privileges are available at Canonsburg General Hospital (83 beds). Another hospital of 500 beds is located within 6 miles of this community. Housing and office space available. Physician can supplement his income as school physician, or through part-time industrial service. Diversified area industry provides steady employment. High school is jointure; student population: 4,338. Churches of all denominations. Civic and service clubs, golf courses, playgrounds, horse-racing, and fishing provide some of the area's recreation.

Roscoe: Located on the western bank of the Monongahela a few miles south of Route 70S, Roscoe has a population of 1,300, and a trade-area population of about 5,000. There are no physicians in Roscoe; residents travel to California (7 miles) or Charleroi (10 miles) for medical services. Nearest hospital is located at North Charleroi (6 miles). Housing and office space available. Steel and coal mining industries provide area's major sources of employment. Thirteen churches represent major denominations. Six schools in area, with total enrollment of 1,000. State Teachers' College located in nearby California. Two golf clubs, major civic and service organizations.

YORK COUNTY

Fawn Grove: Located near the Maryland border, 28 miles southeast of York on Route 851, Fawn Grove has a population of 410, with a trade-area population of 1,600. There are no physicians in town; residents travel to Delta (7 miles) for medical attention. Nearest hospital located in York. Housing and office space available. Seven churches, including Methodist, Presbyterian, and Roman Catholic. Merged school district; student population: 1,645. Swimming pool in community. Nearest country club, twenty miles; boating and fishing on Susquehanna River, 10-12 miles east of community.

'James Z. Appel Fund' Will Aid Premedical Students

HONORING James Z. Appel, M.D., AMA president, a fund has been established to provide financial aid to needy, deserving premedical students with promise of admission to medical school.

Dr. Appel, chairman of the Trustees of the State Society's Educational and Scientific Trust since the Trust's founding in 1954, has helped administer the $650,000 in loans and scholarships to medical students. The new fund in his name will pioneer an earlier sponsorship of possible future physicians, lending financial assistance during undergraduate years.

THE FARSIGHTED PLAN was inaugurated by President Appel's home-area colleagues—members of Lancaster City and County Medical Society, the organization making the original contribution. Anyone interested in helping to swell the fund, thus encouraging young people to prepare for a medical education, may send contributions to: The James Z. Appel Fund, The Educational and Scientific Trust, 230 State Street, Harrisburg, Pennsylvania 17105.

Benevolence Gifts Total $8,571 for Year

CONTRIBUTIONS to the state Medical Benevolence Fund in December pushed the total gifts for the year to $8,571.56. Benefactors in December were the Woman's Auxiliary to the Lancaster City and County Medical Society, in honor of Mrs. Lucian J. Fronduti, and the Woman's Auxiliary to Blair County Medical Society, in memory of Mrs. James Warren Hershberger.

FOR TRAFFIC SAFETY—On behalf of the Luzerne County Woman's Auxiliary, Mrs. Edward R. Janjigian accepts the Governor's Award for Traffic Safety from Theodore B. Smith, Jr., state revenue secretary, right, as Harry L. Brainerd, commissioner of the Bureau of Traffic Safety, looks on. The auxiliary unit was cited for distribution of brochures and support of traffic, bicycle, pedestrian, and anti-molester safety programs.

What You Should Know About the New Drug Controls

■ **ONLY THE** small number of physicians who ***regularly dispense and charge for drugs*** covered in regulations under the new drug-abuse control law will be required to keep records, according to the Pharmaceutical Manufacturers Association.

The PMA cites the following section of the act:

"The provisions of paragraphs (1, Records) and (2, Inspection) of this subsection shall not apply to a licensed practitioner . . . with respect to any depressant or stimulant drug received, prepared, processed, administered, or dispensed by him in the course of his professional practice, unless such practitioner is regularly engaged in dispensing any such drug or drugs to his patients for which they are charged, either separately or together with charges for other professional services."

THE KEY PHRASES in the section are the words ***"regularly engaged"*** and ***"for which they are charged,"*** the PMA explains.

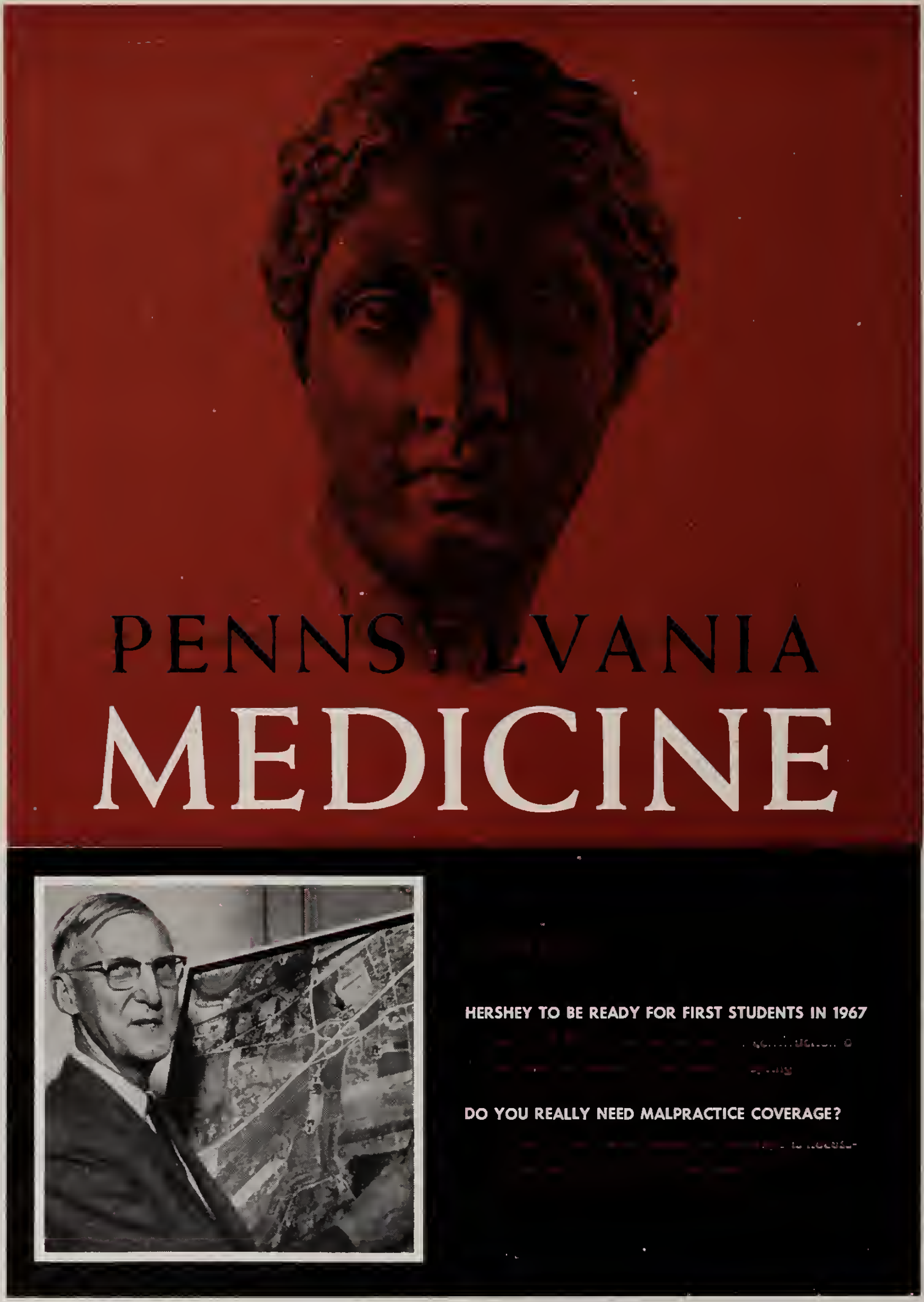
THE PROPOSED regulations state that physicians ". . . maintaining . . . small supplies of these drugs for dispensing or administering in the course of professional practice in emergency or special situations will not be considered as regularly engaged in dispensing for a fee."

Federal regulations drafted under the drug-abuse control law, effective February 1, involve amphetamines and barbiturates.

THE FOOD AND DRUG Administration late last month announced that it also proposes to control (1) drugs having a potential for abuse because of their depressant effect on the central nervous system; (2) drugs having a potential for abuse and habit forming because of their stimulant effect on the central nervous system; and (3) those having a potential for abuse because of their hallucinatory effect.

For those physicians who, in the course of their practice, regularly dispense the controlled drugs and charge for them, the PMA notes that certain records must be kept for three years, effective February 1.

INCLUDED ARE: a complete, accurate record of all depressant and stimulant drugs on hand February 1, 1966; a complete, accurate record of the kind and quantity of each drug received, sold, delivered or otherwise disposed of; the name, address (and registration number under Section 510 (e) of FDCA) of the person from whom the drugs were received, and the one to whom they were sold, delivered, dispensed or otherwise disposed of; and the date of the transaction. No separate form for these records will be required as long as the information specified is available.



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Contraindications: Previous allergic or idiosyncratic reactions to meprobamate or meprobamate-containing drugs.

Precautions: Careful supervision of dose and amounts prescribed is advised. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction; withdraw gradually after use for weeks or months at excessive dosage. Abrupt withdrawal may precipitate recurrence of pre-existing symptoms, or withdrawal reactions including, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, the dose should be reduced and operation of motor vehicles or machinery or other activity requiring alertness should be avoided if these symptoms are present. Effects of excessive alcohol may possibly be increased by meprobamate. Grand mal seizures may be precipitated in persons suffering from both grand and petit mal. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side effects: Drowsiness may occur and, rarely, ataxia, usually controlled by decreasing the dose. Allergic or idiosyncratic reactions are rare, generally developing after one to four doses. Mild reactions are characterized by an urticarial or erythematous, maculopapular rash. Acute nonthrombocytopenic purpura with peripheral edema and fever, transient leukopenia, and a single case of fatal bullous dermatitis after administration of meprobamate and prednisolone have been reported. More severe and very rare cases of hypersensitivity may produce fever, chills, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, anaphylaxis, stomatitis and proctitis. Treatment should be symptomatic in such cases, and the drug should not be reinstituted. Isolated cases of agranulocytosis, thrombocytopenic purpura, and a single fatal instance of aplastic anemia have been reported, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity has been reported, usually after excessive meprobamate dosage. Suicidal attempts may produce lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

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The American Cancer Society maintains and offers free to all physicians, as a part of its professional education program, a series of monographs on diagnosis and treatment of cancer of various sites. First developed in 1948, the series is updated as new information is available, so that physicians can rely on the soundness of each monograph. The most recent —*Cancer of the Prostate,* by Harry Grabstald, M.D.,—was published in the fall of 1965.

Authors in the series are physicians whose work in cancer and their specialties is well known. Titles are listed below.

CANCER OF THE COLON AND RECTUM (Revised 1963)
Frederick A. Coller, M.D. and William J. Regan, M.D.

CANCER OF THE ESOPHAGUS AND STOMACH
Owen H. Wangensteen, M.D.

CANCER OF THE FEMALE GENITAL TRACT
Herbert F. Traut, M.D. and Ralph C. Benson, M.D.

CANCER OF THE LARYNX (New 1963)
Chevalier L. Jackson, M.D. and Charles M. Norris, M.D.

CANCER OF THE LUNG
Richard H. Overholt, M.D. and Sherman W. Atwell

CARCINOMA OF THE BREAST
C. D. Haagensen, M.D.

DIAGNOSIS OF GENITO-URINARY NEOPLASMS (Revised 1963)
Victor F. Marshall, M.D.

MALIGNANT BONE TUMORS: PRIMARY AND METASTATIC (New 1964)
Murray M. Copeland, M.D. and Charles F. Geschickter, M.D.

ORAL CANCER, A MONOGRAPH FOR THE DENTIST (New 1962)
Lester R. Cahn, D.D.S. and Danely P. Slaughter, M.D.

THE PATHOLOGY OF TUMORS (New 1963)
Lauren V. Ackerman, M.D. and Frederick T. Kraus, M.D.

CANCER OF THE PROSTATE (New 1965)
Harry Grabstald, M.D.

If you would like to receive one or more of the monographs, please tear out this page, check the items you want, provide your name and address, and send to:

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American Cancer Society
P. O. Box 2667
Harrisburg, Pa. 17105

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Or, call or write your local American Cancer Society, whose office personnel will be happy to supply these monographs or other professional education materials.

PENNSYLVANIA DIVISION PHILADELPHIA DIVISION

AMERICAN CANCER SOCIETY

Pennsylvania Cancer Forum Page—presented cooperatively by the Commission on Cancer of the Pennsylvania Medical Society, the Pennsylvania and Philadelphia Divisions of the American Cancer Society, and the Cancer Control Section, Pennsylvania Department of Health.

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5,440	1963	88.0%
10,384	1964	88.5%

β-Hemolytic Streptococci [2,3,1]

# OF CULTURES	YEAR	% EFFECTIVE
2,448	1962	89.5%
1,519	1963	95.2%
2,492	1964	96.7%

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TAO Rx information

Indications: The bacterial spectrum includes: streptococci, staphylococci, pneumococci and gonococci. Recommended for acute, severe infections where adequate sensitivity testing has demonstrated susceptibility to this antibiotic and resistance to less toxic agents. **Contraindications and Precautions:** TAO (triacetyloleandomycin) is not recommended for prophylaxis or in the treatment of infectious processes which may require more than ten days continuous therapy. In view of the possible hepatotoxicity of this drug when therapy beyond ten days proves necessary, other less toxic agents, of course, should be used. If clinical judgement dictates continuation of therapy for longer periods, serial monitoring of liver profile is recommended, and the drug should be discontinued at the first evidence of any form of liver abnormality. It is contraindicated in pre-existing liver disease or dysfunction, and in individuals who have shown hypersensitivity to the drug. Although reactions of an allergic nature are infrequent and seldom severe, those of the anaphylactoid type have occurred on rare occasions. **References:** 1. Isenberg, Henry D.: Health Laboratory Science **2**:163-173 (July) 1965. 2. Fowler, J. Ralph et al: Clinical Medicine **70**:547 (Mar.) 1963. 3. Isenberg, Henry D.: Health Laboratory Science **1**:185-256 (July-Aug.) 1964.

Many Physicians Are 'At Home' In the World of the Arts

By Henry B. Mussina, M.D.

FROM THE TIME of Aesculapius down to the present day, many physicians have been interested in the cultural arts, often making notable contributions to various branches of the humanities.

Albert Bilroth (1829-95), pioneer in visceral surgery, composed music and wrote about its physiological effects; Leopold Damrosch (1832-85) founded the New York Symphony Orchestra; other physician-musicians included Herman Boerhaave (1668-1738), and Herman von Helmholtz (1821-94).

Among medical doctors also famed as poets were François Rabelais (1490-1553), and Oliver Wendell Holmes (1809-94), and, as writers of prose, Sir Thomas Browne (1609-82), S. Weir Mitchell (1829-1914), Sir Arthur Conan Doyle (1859-1930), and the more recent A. J. Cronin, Somerset Maugham, and Frank G. Slaughter.

Only rarely does an individual appear who can be called a "complete humanitarian." St. Luke was one such uncommon person—physician, writer, artist, and spiritual leader. As a physician, he probably studied at one of the Temples of Aesculapius. In the biblical book which bears his name, he wrote of diseases, symptoms, and psychological factors, using precise terminology. Although he was highly skilled as a medical doctor, it was nevertheless his writing which immortalized him; the "Gospel According to St. Luke" has been called "the most beautiful book ever written"—a prose poem excelling the other gospels in literary style, chronological arrangement, and precision of statement. This first-century giant was a music-lover, too, and is said to have preserved the five great hymns of the early church. As an artist he also left his mark: according to an inscription in the Roman catacombs, he painted several portraits of Mary, the mother of Christ; one of these is preserved in the Capella Paolina in Rome. It has been said of this great man, ". . . it was St. Luke who first taught Art to fold its hands and pray."

ART TALK—Dr. Mussina, right, tells J. Joseph Hirsch, M.D., president of the Pennsylvania Physician's Art Association, about one of his paintings, displayed in the association's exhibit during Session '65 in Atlantic City.

Anatomy and Art

Herophilus of Alexandria drew outstanding anatomical dissections in the fourth century B.C., but not until the Renaissance and the work of the Flemish anatomist and physician, Andreas Vesalius (1514-64) was medical art brought to a high plane. There is evidence that Michelangelo, Raphael, and Leonardo da Vinci studied anatomy in order to enhance the accuracy of their artistic interpretations of the human figure. Medical motifs are discernable in the works of Rembrandt, Holbein, Rubens, and Teniers. More recently, Sir Edwin Landseer (1802-73), and Sir Francis Haden (1818-1910), gained acclaim not only for their landscapes, but for their anatomical engravings, as well.

Physicians who have illustrated their own books have included Richard Bright (1789-1858), Thomas Hodgkin (1798-1866), Baron Joseph Lister (1827-1912), and Jean Charcot (1825-93)—the latter also a brilliant caricaturist. Outstanding among modern medical illustrators is Frank H. Netter, M.D., New York City, whose work for the CIBA Pharmaceutical Company has won him world renown.

But many other contemporary physicians have shown great ability in a wide variety of art fields—probably because the medical man deals with that most exquisite form of divine art and beauty, the human body. Distortion of this beauty by the so-called "modern" painters can be attributed to ignorance, lack of ability, or the desire to attract attention on the basis of minimal study, training, technical skill, and practice.

Art for the M.D.'s Sake

The arts can be life-saving for physicians, whose day-after-day regimen is likely to be a "grind" if unrelieved by contrasting interests. As Sir William Osler said, "No man is really happy or safe without a hobby." Physicians, just like everyone else, cannot live by bread alone.

My interest in painting began in 1924, during my premedical years at Bucknell University. On a bet with some fraternity brothers, I discovered that I could paint on a par with other amateurs—evidencing, by a "fluke," a latent talent of which I had been unaware.

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Many individuals have latent talent; others, less well endowed, can develop artistic skills by patient application. But if one never attempts anything in the arts, he will never achieve anything. Those who are willing to creep before they walk can learn fundamentals and can welcome helpful advice, showing a steadfast desire for accomplishment through diligent study and practice. Very likely they will achieve, in time, something we all want: the respect and admiration of others, plus personal satisfaction in a job well done.

Therapeutic Course

For the thirteen years since I seriously adopted art as a hobby to complement my medical practice, work with the graphic arts has meant the difference between a future devoid of hope (following a series of coronary occlusions), and a rewarding life brightened by a satisfying sense of artistic accomplishment. I have found relaxation in painting, a feeling of "getting away from it all"—without the physical exertions demanded by most sports and many hobbies. Artistic pursuits afford a perfect outlet for the tension which the physician's long hours and his daily struggle with suffering and death can create.

With the help of George C. Eddinger, a graduate of the Philadelphia Academy of Fine Arts, I have continued my art studies, finding in them a scope of activity open to anyone with average intelligence. How far an individual goes in drawing and painting depends entirely upon the earnestness of his desire. There are many dilettantes who paint just one picture, hang it on the wall, and boast of it to their friends.

Since 1926, local art clubs have been formed by groups of physicians in many cities in the United States and Canada. Membership in the American Physicians Art Association (organized within the American Medical Association in 1938), has grown steadily. At the state level, also, there are art groups among medical doctors, the Pennsylvania Physicians Art Association (a sub-group formed within the State Society), having been launched in 1958. Exhibits by such art organizations usually coincide with meetings of the parent bodies, stimulating artistic interest and endeavor among other physicians and among laymen. It is good for the public to realize that members of the medical profession are knowledgeable and creative in the arts.

But a check of Pennsylvania Medical Society biographical data reveals that although one physician in five is a golfer, one in six an amateur photographer or fisherman, and one in seven a hunter, only one in twenty-four is actively interested in one of the creative arts. This is unfortunate, for an artistic avocation gives one a sense of accomplishment, leaving little time for negative introspection. The hobby requires little equipment or expenditure, and can be adopted or terminated according to the hobbyist's desires. It is an ideal form of occupational therapy for anyone, at any age.

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POISON CONTROL CENTERS

In Pennsylvania

■ THIS LIST OF poison control centers in Pennsylvania has been compiled from information provided by the Public Health Service, U.S. Department of Health, Education, and Welfare, by the Division of Behavioral Problems and Drug Control of the Pennsylvania Department of Health, and from questionnaires returned to the JOURNAL by the centers.

■ ALL CENTERS listed provide both treatment and information, unless otherwise noted.

City	*Name and Address*	*Telephone*	*Director, Assistant Director*
Allentown	Poison Control Center Allentown Hosp. Assn. 17th & Chews Sts. Allentown 18102	434-7161 Ext. 225, 226, 227,, 228	Forrest G. Moyer, M.D. Jean Gilson, R.N.
Chambersburg	Owen W. Hartman, M.D. Professional Arts Bldg. Chambersburg 17201	263-8461 (Will answer 24 hours a day)	
	Richard P. Layman, M.D. Professional Arts Bldg. Chambersburg 17201		
Chester	Poison Control Center Sacred Heart Hosp. 9th & Wilson Sts. Chester 19013	494-0721	Joseph N. Tori, M.D.
Danville	Poison Control Center Geisinger Med. Center Danville 17821	275-1000 Ext. 592, 422	Samuel S. Morrison, M.D. Sterling B. Suddarth, M.D.
Easton	Poison Control Center Easton Hosp. 12th & Lehigh Sts. Easton 18042	258-6221	Agatha H. Costanza, M.D.
East Stroudsburg	Poison Control Center General Hosp. of Monroe County 206 E. Brown St. East Stroudsburg 18301	HA 1-4000	M. J. Leitner, M.D.
Erie	Poison Control Center Erie Osteopathic Hosp. 5515 Peach St. Erie 16509	UN 4-4031 Ext. 27	O. W. Short, D.O. Mrs. Lois Jedynski, R.N.
	Poison Control Center Hamot Hosp. 2 E. 2nd St. Erie 16507	GL 2-6991	William D. Loose, M.D.
Hanover	Poison Control Center Hanover General Hosp. Hanover 17331	Day: 637-3711 Ext. 31 Night: 637-3711 Ext. 30	Gabriel Zelesnick, M.D. B. N. Bathon, M.D. John A. Grant, M.D.
Harrisburg	Poison Control Center Harrisburg Hosp. Front & Mulberry Sts. Harrisburg 17104	236-7011 Ext. 430 or 232-9591 (Dr. Tursky)	Rosemarie J. Tursky, M.D.
	Poison Control Center Polyclinic Hosp. 3rd & Radnor Sts. Harrisburg 17110	236-3031 Ext. 530, 532	James E. Jones, M.D. Bernard M. Margolis, M.D.
Johnstown	Poison Control Center Mercy Hosp. 1020 Franklin St. Johnstown 15905	535-7511 Night: 535-5353	David C. Borecky, M.D. Richard E. Voytko, M.D.
Lancaster	Poison Control Center St. Joseph Hosp. College Ave. & Walnut St. Lancaster 17604	397-2821 Ext. 341	David B. Coursin, M.D. Charles H. Kurtz, M.D.
Latrobe	Pathology Laboratories Latrobe Area Hosp. 2nd Ave. Latrobe 15650	KE 7-7771	Walter W. Jetter, M.D.
Philadelphia	*Michael A. Manko, M.D. Lankenau Med. Bldg. Philadelphia 19131	MI 9-4558 MI 9-1400	

	**Poison Information Center Dept. of Public Health Office of Medical Examiner 13th & Wood Sts. Philadelphia 19107	WA 2-5523 WA 2-5524	John H. Watson, Jr., M.D.
Pittsburgh	Poison Information Center Children's Hosp. 125 DeSoto St. Pittsburgh 15213	681-6669	George M. Shadle, M.D. Gilbert A. Friday, M.D.
	†Poison Control Center St. John's Gen. Hosp. 3339 McClure Ave., N.S. Pittsburgh 15212	766-8300	Henry E. West Morris M. Esman, M.D. W. C. McCarthy, M.D.
Scranton	Poison Control Center Scranton State Gen. Hosp. Mulberry & Franklin Ave. Scranton 18503	342-3255 Ext. 231	Edward Notari, M.D.
Sharon	‡Emergency Room Sharon Gen. Hosp. 740 E. State St. Sharon 16147	981-1700	
Wilkes-Barre	Poison Control Center Mercy Hosp. 196 Hanover St. Wilkes-Barre 18703	822-8101	Joseph Robinson, M.D.
	Poison Control Center Wilkes-Barre Gen. Hosp. Auburn St. Wilkes-Barre 18702	823-1121	Sheldon H. Kluger, M.D. Irvin Jacobs, M.D.
York	Poison Control Center Memorial Osteopathic Hosp. 325 S. Belmont St. York 17403	843-8623	James M. Hotham, D.O.
	Poison Control Center York Hosp. S. George St. & Rathton Rd. York 17403	854-1511 Ext. 297, 298, 311	E. W. Nollau

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† In near future, treatment only.
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NOTEWORTHY BOOKS

PMS and the Older Patient

The book, *Clinical Features of the Older Patient* has its origins in the Pennsylvania Medical Society. Moreover, it saw the first stages of its development in the PENNSYLVANIA MEDICAL JOURNAL. It is not our work, however, but it very largely resulted from efforts of Joseph T. Freeman, M.D. His labors in the field of geriatrics are very well known.

Indeed, the book is but a small part of a much larger output of work in this discipline. It is the fruition of the efforts of Dr. Freeman and the State Society's Commission on Geriatrics which began work in 1952. We would like a small share of the reflection of the glory which this fine work brings to Dr. Freeman, since the chapters of his book originally appeared in the pages of our JOURNAL. The Philadelphia County Medical Society is also in the picture, for this county began work in this field in 1951, subsequently spreading the stimulus statewide.

Dr. Freeman has given us a valuable book—one which is easy to use. The compilation and editing reflect two essentials necessary to attain unity in such works: the chapters have been edited with intelligence and skill, and enough work has been lavished on the editing so that transitions are smooth and repetitions all but completely eliminated.

We Pennsylvanians may take some pride in having done our small part to bring this compendium of clinical data to the practitioner's desk. The book is published by Charles C. Thomas, Springfield, Ill.—CBL.

PMS and the Patient with Cancer

Management of the Patient with Cancer is a very large book (1,067 pages), edited by Thomas F. Nealon, Jr., M.D. This concerns us because Dr. Nealon is a Contributing Editor of the PENNSYLVANIA MEDICAL JOURNAL, professor of surgery at Jefferson Medical College, and a worker in the vineyard of organized medicine.

We take pride in having spent enough time in perusing this great book to be able to recognize its intrinsic merit and its usefulness to the practitioner. This is not a small pride, for Dr. Nealon has turned out a great and highly useful book.

It is a work which is directed to the physicians who can do the most good for the patient with cancer—the family practitioners and the general surgeons, internists, or pediatricians—who see these patients for the first time. The authors and the editor are aware that these are the doctors whose advice is most likely to be heeded by the patient; the chapters of this book contain the information upon which to base this advice.

We were in need of just such a volume and it is not hard to see that it will be popular and will do much good. Its forty chapters written by seventy-one distinguished teachers are put together by an editor who labored hard and with patience and skill. The result is a book which is complete but not redundant. The publication date is September 28, 1965, and the publisher, W. B. Saunders Co., of Philadelphia ($27.50).—CBL.

BOOKS RECEIVED

A Primer of Peripheral Vascular Diseases, Travis Winsor, M.D., and Chester Hyman, Ph.D. Philadelphia, Pennsylvania: Lea and Febiger. Price, $12.50.

Sexual Behavior in the Human Female, Alfred C. Kinsey, Wardell B. Pomeroy, Clyde E. Martin, and Paul H. Gebhard. New York, New York: Pocket Books, Inc. Price, $1.65.

Modern Treatment, Vol. 2, No. 5 (Sept., 1965) —Treatment of Skin Diseases, D. Joseph Demis, M.D., guest editor; Treatment of Chronic Disturbances of Bowel Function, J. Alfred Rider, M.D., and Hugo C. Moeller, M.D., guest editors. New York, New York: Hoeber Books. Price, $16.00 per year by subscription (published bimonthly).

Management of the Patient with Cancer, Thomas F. Nealon, Jr., M.D., editor. Philadelphia, Pennsylvania: W. B. Saunders Company. Price, $27.50.

Annals of the New York Academy of Sciences, Vol. 131, Art. 2, Mechanisms of Dental Caries, Harold E. Whipple, editor. Published by the New York Academy of Sciences, September 30, 1965. Price, $5.00.

Medicine in Transition, by Iago Galdston, M.D. Chicago, Illinois: The University of Chicago Press. Price, $5.95.

Hysteria: The History of a Disease, by Ilza Veith. Chicago, Illinois: The University of Chicago Press. Price, $7.95.

Respiratory Care, H. H. Bendixen, L. D. Egbert, J. Hedley-Whyte, M. B. Laver, and H. Pontoppidan. St. Louis, Missouri: The C. V. Mosby Company. Price, $15.00.

Injuries of Nerves, S. Weir Mitchell. New York, New York: Dover Publications. Price, $2.75.

• This listing of books should be considered sufficient return for the sender's courtesy. On written request, the Book Review Editor will gladly furnish any additional book information available.

SESSION '66

■ **The 1966 Annual Session of the Pennsylvania Medical Society will be held October 11-14 at the Penn-Sheraton Hotel in Pittsburgh.**

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512214

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2. Pollack, P. J., Pargyline Hydrochloride and Methyclothiazide Combined In The Treatment of Hypertension, Cur. Thera. Res., 7:10, Jan., 1965.
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BP reductions in the recumbent and sitting positions often are nearly as great as in the standing. In clinical trials, the average *recumbent* BP reduction was 36/18 mm. Hg.

The average *standing* reduction in clinical trials was 45/22 mm. Hg. Thus the difference between the standing and recumbent readings was only 9/4 mm. Hg.

Significantly lowers blood pressure in all body positions; less likelihood of orthostatic hypotension

In clinical trials, the average reduction in standing blood pressure was 45/22 mm. Hg.; in the sitting position it was 48/20 mm. Hg.; and in the recumbent position, 36/18 mm. Hg.

Because Eutron effectively reduces blood pressure in all body positions, there is reduced likelihood of orthostatic symptoms or hypotension.

This was reflected in the relatively mild character of side effects seen in clinical trials (see below).

Smooth and gradual onset

Onset of antihypertensive action is usually quite smooth. Initial reduction of systolic and diastolic readings is usually seen within a week — maximum reduction in seven to ten days.

Less troublesome side effects may be seen; frequent improvement in "sense of well-being"

Fewer than 1% of patients studied discontinued Eutron therapy because of side effects. This is due in part to the relatively low dosage needed with the combination. Usual recommended dose is one tablet daily—that is, 25 mg. Eutonyl with 5 mg. Enduron. *This is about half the usual therapeutic dose of Eutonyl given alone.* As a consequence side effects may be milder. And, as with Eutonyl given alone, the patient may well note an increased sense of well being. This is in distinct contrast to most other antihypertensive therapy.

ABBOTT

Prescribing information for EUTRON

INDICATIONS: Eutron (pargyline hydrochloride and methyclothiazide) is indicated in the treatment of patients with moderate to severe hypertension, especially those with severe diastolic hypertension. It is not recommended for use in patients with mild or labile hypertension amenable to therapy with sedatives and/or thiazide diuretics alone.

CONTRAINDICATIONS: Eutron is contraindicated in patients with pheochromocytoma, advanced renal disease, paranoid schizophrenia and hyperthyroidism. Until further experience is gained it cannot be recommended for use in patients with malignant hypertension, children (under 12 years of age), or pregnant patients.

The concomitant use of the following is contraindicated: other monoamine oxidase inhibitors; parenteral forms of reserpine or guanethidine; sympathomimetic drugs; foods high in tyramine such as cheese; imipramine and amitriptyline, or similar antidepressants; methyldopa. A drug-free interval of two weeks should separate therapy and use of these agents.

WARNINGS: Pargyline hydrochloride is a monoamine oxidase inhibitor. Patients should be warned against eating cheese, and using alcohol, proprietary drugs or other medication without the knowledge of the physician. When it is necessary to administer alcohol, narcotics (notably meperidine), antihistamines, anesthetics, barbiturates and other hypnotics, sedatives, tranquilizers, or caffeine, these agents can be used cautiously at a dosage of ¼ to ⅕ the usual amount. Avoid parenteral administration where possible. Withdraw pargyline two weeks before elective surgery.

Patients should be warned about the possibility of postural orthostatic hypotension. Those with angina or other evidence of coronary disease should not increase physical activity. Pargyline may lower blood sugar. Potassium depletion is unlikely at the recommended dosage, but if it occurs, adjust dosage or withdraw or provide added natural food sources of potassium; potassium tablets should be avoided wherever possible, as bleeding or obstructive ulceration of the small bowel has been associated with their use; potassium levels should be especially watched if the patient is on digitalis or steroids, or if hepatic coma is impending.

PRECAUTIONS: When determining the antihypertensive effect of Eutron, blood pressure should be measured while the patient is *standing.* Use with caution in hyperactive or hyperexcitable persons. Such persons may show increased restlessness and agitation. Withdraw drug during acute febrile illness. Watch patients with impaired renal function for increasing drug effects or elevation of BUN and other evidence of progressive renal failure; withdraw drug if such alterations persist and progress. Pargyline has not been shown to cause damage to body organs or systems. As with all new drugs, complete blood counts, urinalyses, and liver function tests should be performed periodically. The drug should be used with caution in patients with liver dysfunction. With prolonged therapy, examine patients for change in color perception, visual fields, and fundi.

Elevated blood urea nitrogen, serum uric acid or blood sugar are possibilities attributable to the methyclothiazide in Eutron. Methyclothiazide may also reduce arterial response to pressor amines. Blood dyscrasias, including thrombocytopemia with purpura, agranulocytosis and aplastic anemia, have been seen with thiazide drugs.

SIDE EFFECTS: The use of pargyline may be associated with orthostatic hypotension. Mild constipation, slight edema, dry mouth, sweating, increased appetite, arthralgia, nausea and vomiting, headache, insomnia, difficulty in micturition, nightmares, impotence, delayed ejaculation, rash, and purpura have been encountered with pargyline. Hyperexcitability, increased neuromuscular activity (muscle twitching) and other extra-pyramidal symptoms have been reported. Drug fever is extremely rare. Congestive heart failure has been reported in a few patients with reduced cardiac reserve. Nocturia has been observed with the combination. If side effects persist, despite symptomatic therapy or reduction of the dose, discontinue the drug.

512214

DEATHS

O INDICATES CURRENT MEMBERSHIP IN COUNTY MEDICAL SOCIETY, THE PENNSYLVANIA MEDICAL SOCIETY, AND THE AMERICAN MEDICAL ASSOCIATION.

O Samuel H. Adams, Pittsburgh; Maryland Medical College, 1912; age, 83; died November 13, 1965. Dr. Adams, commissioned in the Army Medical Corps in 1917, was loaned to Britain, serving with the Second Lancashire Fusiliers in the Ypres, Arras, Amiens, and Somme River campaigns; for gallantry in action, he was awarded the Victoria Cross. He belonged to Masonic orders, the University Club, and the Third Presbyterian Church of Pittsburgh. His survivors include a son, Dr. Samuel H. Adams, Jr. (now conducting research at the University of Sweden), a sister, and two brothers.

O Martha L. Bailey, Mechanicsburg; Woman's Medical College, 1917; age, 83; died November 28, 1965. Dr. Bailey had served as state chairman of public welfare for the Pennsylvania Federation of Women's Clubs, as vice-commander of the Women's Field Army for Cancer Control, and for over twenty-five years as a director of the York County Tuberculosis and Health Society. She is survived by several cousins.

O Harvey Bartle, Philadelphia; University of Pennsylvania School of Medicine, 1902; age, 91; died November 25, 1965. Dr. Bartle was a former president of the Industrial Medical Association, and belonged to the Union League Club. Surviving is his son, Harvey Bartle, Jr., M.D.

O Louis H. Block, Philadelphia; Jefferson Medical College, 1939; age, 51; died November 3, 1965. A staff member at Albert Einstein Medical Center (Northern Division), Dr. Block was a past president of that institution's junior staff, and a past secretary of the medical staff. He was an affiliate faculty member at Temple University School of Medicine, a staff member at Rolling Hill Hospital, Cheltenham, a Diplomate of the American Board of Surgery, and a Fellow of the American College of Surgery and of the Philadelphia College of Surgery. Among his survivors are his wife, three daughters, and a son.

O Andrew B. Buczko, Mount Carmel; Temple University School of Medicine, 1918; age, 74; died October 18, 1965. Dr. Buczko, physician to the Mount Carmel High School football team, had been honored for his contribution to high school athletics. For twenty-three years, he medically evaluated compensation cases for the Philadelphia Reading Coal and Iron Company. He was a member of the Elks. He is survived by his wife, a daughter, and a brother.

O William D. Comess, York; Medical College of Virginia, 1933; age, 58; died November 14, 1965. Dr. Comess' survivors include his wife (who shared offices with him and who is known professionally as Florence E. Hess, M.D.), as well as a daughter and seven brothers, one of whom is Raymond R. Comess, M.D.

Michael A. D'Alessandro, Philadelphia; Jefferson Medical College, 1925; age, 64; died November 16, 1965. Dr. D'Alessandro was a former member of the State Society. His wife preceded him in death, and there are no known survivors.

O Lylburn C. Downing, Los Angeles (formerly of Philadelphia and Roanoke); Howard University College of Medicine, 1912; age, 76; died May 25, 1965. Dr. Downing, the recipient of many professional honors, was a staff member and instructor in several hospitals in Virginia cities. Surviving are his wife, two daughters, and two sons, one of whom is Lewis C. Downing, M.D.

O Edgar M. Ernst, Reading; Temple University School of Medicine, 1942; age, 48; died November 21, 1965. Dr. Ernst belonged to Masonic organizations and to several clubs. In addition to holding membership in the Berks County and Pennsylvania medical societies and the AMA, he was affiliated with the General Practitioners' Association. Among his survivors are his wife, his mother, two daughters, a son, and a sister.

Cornelius T. Ferry, Philadelphia; University of Pennsylvania School of Medicine, 1905; age, 83; died October 30, 1965. At the time of his death, Dr. Ferry was the oldest member of the Villanova University Alumni Association, and attended its meetings regularly. One of the oldest practicing physicians in Pennsylvania, he had practiced in Philadelphia since 1935, prior to which he had had offices in Lancaster and in Easton. He was on the staff of the Landis State Hospital. Surviving are his wife, a daughter, and a brother, Alfred A. J. Ferry, M.D.

O Lawrence D. Gallagher, Altoona (formerly of Cresson); Temple University School of Medicine, 1933; age, 60; died November 6, 1965. Dr. Gallagher served on the staff of the Cresson State Sanitorium and later was a resident physician at Altoona's Mercy Hospital. He is survived by his wife and two sons.

O Arthur B. Gill, Asheville, North Carolina, and Mount Dora, Florida (formerly of Philadelphia); University of Pennsylvania School of Medicine, 1905; age, 88; died November 7, 1965. Dr. Gill, professor emeritus of orthopedics at his medical alma mater, was nationally known as an orthopedic surgeon. In 1942, after twenty-two years as professor of orthopedic surgery at the university, he became director of medicine and surgery at the Alfred I. duPont Institute of the Nemours Foundation, a free hospital for crippled children in Wilmington, Delaware. Among other affiliations were those at Children's Seashore House, Atlantic City, and Presbyterian and Orthopedic hospitals, Philadelphia. He belonged to many medical organizations, and was a former president of the American Academy of Orthopedic Surgeons and of the American Orthopedic Association. He had served on the committee on crippled children of the Federal Children's Bureau and on the advisory committee on the care of crippled children, state health departments of Pennsylvania and New York. His only immediate survivor is his wife.

○ **Frank E. Gray**, Pittsburgh; University of Toronto Faculty of Medicine, 1924; age, 71; died December 28, 1965. Dr. Gray is survived by his wife and two sons.

○ **George W. Hartman**, New Cumberland; Hahnemann Medical College and Hospital, 1898; age, 93; died November 4, 1965. Honored in 1948 with Fifty-Year Awards from the State Society and from Hahnemann Medical College and Hospital, and in 1963 with the Twenty-Five-Year Award of Blue Cross, Dr. Hartman was widely known as the founder and owner of the former Keystone Hospital, Harrisburg. Long a board member of several institutions, he was also for twenty years chief medical consultant to the international missions board of the United Church of Christ. He belonged to Masonic orders, and to the Elks, the Modern Woodmen, and the Odd Fellows. His wife and a daughter survive.

Robert S. Heffner, Instow, England (formerly of Pottstown); Jefferson Medical College, 1919; age, 72; died October 26, 1965. Dr. Heffner, who pioneered x-ray work at the Pottstown Hospital, was formerly chief of its x-ray and pediatrics departments. He was for some years a member of the medical societies of Philadelphia and Montgomery Counties. His late father, Oliver Heffner, M.D., had also practiced in Pottstown. Surviving are his wife, a daughter, and a son.

○ **John M. Jamison**, Grove City; Jefferson Medical College, 1918; age, 77; died November 5, 1965. Dr. Jamison had practiced in Grove City since 1923. He is survived by his wife, a daughter, a son, and two brothers.

Robert H. Kazmierski, Yeadon; St. Louis University School of Medicine, 1931; age, 63; died October 3, 1965. Dr. Kazmierski, who practiced in Coudersport for several years, belonged to Masonic organizations in that community. He was a member of the AMA, the American Academy of General Practice, the New York Academy of Science, the American Fracture Association, the Pennsylvania Allergy Association, and the International College of Surgeons, and was a Fellow of the International Academy of Proctology. He was a staff member at Coudersport, Port Allegheny, and Kane Summit hospitals, and was a Thirty-Second Degree Mason. Among his survivors are his wife, two sons, and a brother.

Fred J. Kennan, Altoona; Tufts University School of Medicine, 1935; age, 55; died November 2, 1965. Dr. Kennan engaged in private practice in Boston, then served for three years in the Army Medical Corps, after which he was associated with the Veterans Administration regional office in Boston. Thereafter, he practiced in Windber, then relocated in Altoona. He was on the staff of the Hollidaysburg State Hospital, and belonged to the American Legion. He is survived by his wife, his mother, two daughters, and two sons.

○ **Clarence E. King**, State College; University of Pittsburgh School of Medicine, 1908; age, 81; died August 21, 1965. Dr. King was a member of several Altoona Masonic groups. Surviving him are his wife, a daughter, and two sons, one of whom is John W. King, M.D.

Marie B. K. Kuhlman, Philadelphia; Indiana University School of Medicine, 1913; age, 75; died August 19, 1965.

Charles H. Kirk, Homer City; Eclectic Medical College, 1902; age, 89; died November 2, 1965. Dr. Kirk belonged to Masonic orders, and was a charter member of the Homer City Lions Club. He is survived by two daughters.

○ **Donald B. Lewis**, Forty Fort; Jefferson Medical College, 1950; age, 42; died December 28, 1965. At the time of receiving his medical degree, Dr. Lewis was given the Shain Gold Medal Medical Practice Award. His wife, five daughters, a son, and a brother survive.

○ **Harry S. Mackler**, Hamburg; Columbia University College of Physicians and Surgeons, 1924; age, 69; died November 17, 1965. Dr. Mackler, clinical director of Hamburg Hospital, had previously been associated with hospitals in New Jersey, Kentucky, and Michigan. He belonged to the American Academy of Pediatrics. His survivors include his wife and two daughters.

○ **F. Earle Magee**, Oil City; University of Pittsburgh School of Medicine, 1908; age, 82; died November 5, 1965. Dr. Magee was for fifty years a medical staff member at Oil City Hospital, during part of which time he served as chief of staff. A Fellow of the American College of Surgeons, he held an associate membership in the American Academy of Otolaryngology and Ophthalmology. He was a past president of his county medical society, and a charter member of the Venango County Blind Association's board of directors; he belonged to the Wanango Country Club and to Masonic organizations. His only immediate survivor is a son.

○ **Manus J. McGettigan**, Philadelphia; Jefferson Medical College, 1948; age, 42; died November 8, 1965. Dr. McGettigan was senior attending physican in the department of obstetrics and gynecology at Nazareth Hospital. He was killed when his car went out of control and hit a bridge abutment. He is survived by his wife, three daughters, and three sons.

Harry G. Mumma, Lancaster; University of Pennsylvania School of Medicine, 1913; age, 83; died December 27, 1965. Dr. Mumma belonged to the American Academy of Medicine, the Roanoke Academy of Medicine, Chi Phi, and the Elks. His survivors include his wife, two sisters, and two brothers.

○ **Edward A. Pitcairn**, Pittsburgh; Hahnemann Medical College, 1912; age, 79; died January 2, 1966. Dr. Pitcairn was formerly on the surgical staff of Shadyside Hospital. He is survived by his wife.

○ **George N. Riffle**, McClellandtown; Jefferson Medical College, 1922; age, 68; died December 23, 1965. In 1952, Dr. Riffle was president of the Fayette County Medical Society. For the past twenty-six years, he had been physician to the German Township High School. Among his survivors are his wife, a daughter, and three sons—the latter including Drs. George N. and John Edward Riffle, both M.D.'s.

○ **Samuel A. Ruben**, Washington; University of Pennsylvania School of Medicine, 1911; age, 76; died October 19, 1965. Dr. Ruben, at one time chief of staff at Washington Hospital, was president of the Washington County Medical Society in 1952. In that same year, he was elected a founding Fellow of the American College of Obstetricians and Gynecologists. He had served as physician at the Washington County Children's Home and at the county Home and Hospital. Among his survivors are his wife, two daughters, four sisters, and two brothers, one of whom is David H. Ruben, M.D.

○ **Troy M. Schantz**, Willow Street; Hahnemann Medical College, 1964; age, 27; died November 2, 1965, in an automobile accident. Dr. Schantz is survived by his wife, his parents (father, Paul S. Schantz, M.D.), three daughters, a son, three sisters, and three brothers.

○ **Harry G. Shaffer**, Clearfield; University of Buffalo School of Medicine, 1921; age, 68; died October 1, 1965. Dr. Shaffer, who belonged to the American Board of Otolaryngology, was a member and past president of the Western Pennsylvania Eye, Ear, Nose, and Throat Society, and of the Pennsylvania Academy of Ophthalmology and Otolaryngology. He was a life member of the American Academy of Ophthalmology and Otolaryngology. He belonged to Masonic groups and to the Elks. He is survived by his wife and a son.

○ **Harold B. Shaw**, Surf City, New Jersey, and Willow Grove, Pennsylvania; Hahnemann Medical College, 1922; age, 69; died October 5, 1965. Dr. Shaw was the physician for the Upper Moreland School District, and at one time served as a commissioner. From 1922 to 1963, he was a staff member at Abington Memorial Hospital; he served for some time as chief of the tuberculosis clinic there, for the state. His wife survives.

Elizabeth C. Smith, Arlington, Massachusetts (formerly of Harrisburg); Woman's Medical College, 1911; age, 83; died November 13, 1965. Dr. Smith practiced for over thirty-five years in Pennsylvania, Ohio, North Dakota, and Maryland. A pioneer in behalf of women's suffrage, she was also a founding member of the Business and Professional Women's Clubs. Among her survivors are two daughters and two sons, her physician-husband having preceded her in death.

○ **Ziba L. Smith**, West Nanticoke; College of Physicians and Surgeons, 1906; age, 84; died October 12, 1965. Dr. Smith had been honored with a State Society Fifty-Year Plaque. He belonged to Masonic orders, and was a director of the People's Bank of Nanticoke for many years. He is survived by a sister.

Michael Stolfo, Bethlehem; Jefferson Medical College, 1925; age, 64; died September 26, 1965. His survivors include his wife, five sisters, and three brothers.

○ **William B. Templin**, Johnstown; Indiana University School of Medicine, 1921; age, 69; died August 8, 1965. Chief of obstetrical service at Conemaugh Valley Memorial Hospital from 1928 to 1956, he thereafter served as an active consultant until his death. He had also been associated with Mendenhall Maternity and Lee hospitals. Very active in the Cambria County Medical Society for many years, he served as its president in 1941. In the State Society, he was a member of the Committee on Budget in 1963-64. Among his survivors are his wife, a daughter, a son, William B. Templin, Jr., and a sister.

○ **Roy J. Wetzel**, Hanover; Jefferson Medical College, 1932; age, 59; died October 15, 1965. Dr. Wetzel, who died while in Japan with his family, was a Fellow of the American College of Surgeons and a Diplomate of the American Board of Otolaryngology, and belonged to the American Academy of Ophthalmology and Otolaryngology. He was on the staff of the Hanover General Hospital. His survivors include his wife, a daughter, and a son.

○ **Josephus T. Ullom**, Philadelphia; University of Pennsylvania School of Medicine, 1901; age, 88; died November 12, 1965. Dr. Ullom, a practicing physician for more than sixty years, was a founding member of the American Trudeau Society, a Fellow of the American College of Physicians, and a Diplomate of the American Board of Internal Medicine. He was formerly chief of staff and chief of medicine at Chestnut Hill Hospital, and at the time of his death was a staff member emeritus. He was a former staff member at the Henry Phipps Institute for Tuberculosis and had been visiting physician at Philadelphia General Hospital's tuberculosis department. Four daughters and four sisters survive.

James J. Waygood, Philadelphia; University of Pennsylvania School of Medicine, 1919; age, 71; died November 18, 1965. For the twenty-five years prior to 1953, Dr. Waygood was owner and medical director of Rosemeath Farms Sanitarium, and during his career he had been associated with several other institutions. He founded the pediatric psychiatry clinic at St. Christopher's Hospital, and was first vice-president of the Child Health Society of Children's Hospital. He is survived by his wife, two daughters, two sons, and a sister.

John W. Wenzel, Connellsville; Eclectic Medical College, 1908; age, 93; died October 23, 1965. Dr. Wenzel was formerly a medical society member. He is survived by a daughter and two sons.

○ **Marian B. Wikingsson**, Merion; Woman's Medical College, 1944; age, 50; died November 13, 1965. Dr. Wikingsson had been an instructor at the University of Pennsylvania School of Medicine, a staff member at Presbyterian Hospital, and an attending physician at Children's Heart Hospital. She had also served as physician-in-charge at Inglis House, and as an examining physician for the Bell Telephone Company. Her mother and a brother survive.

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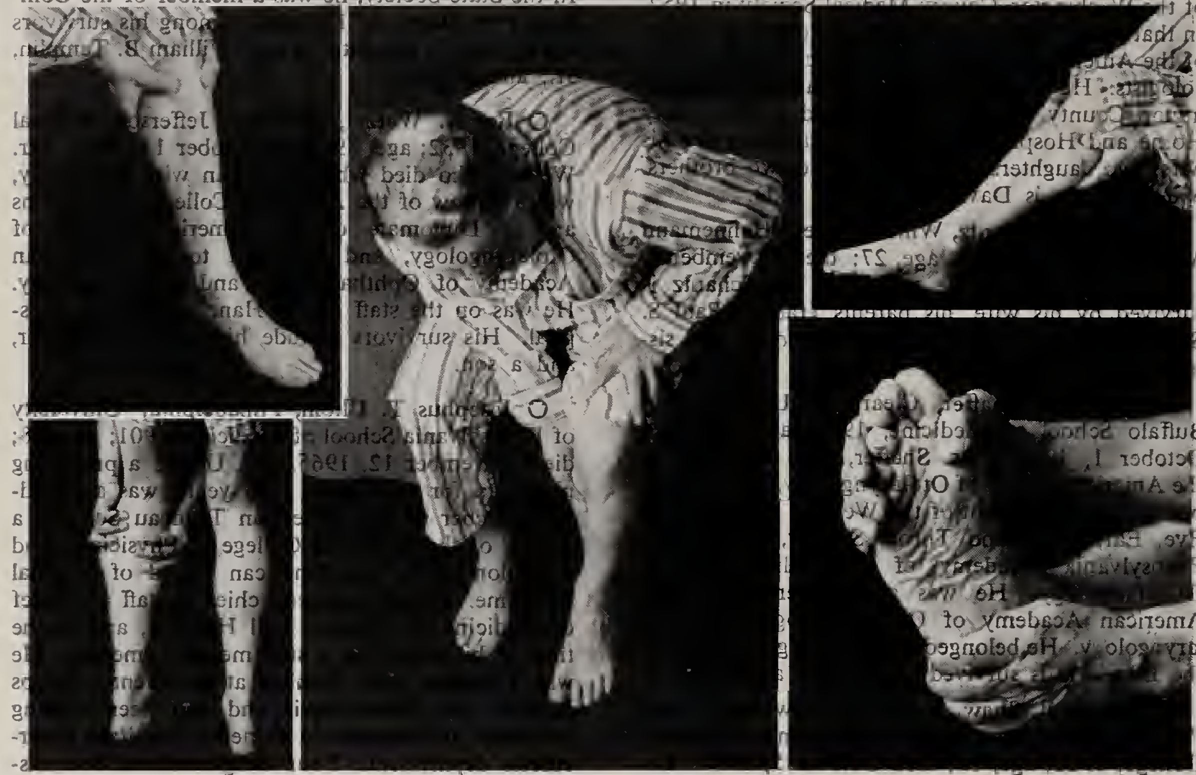

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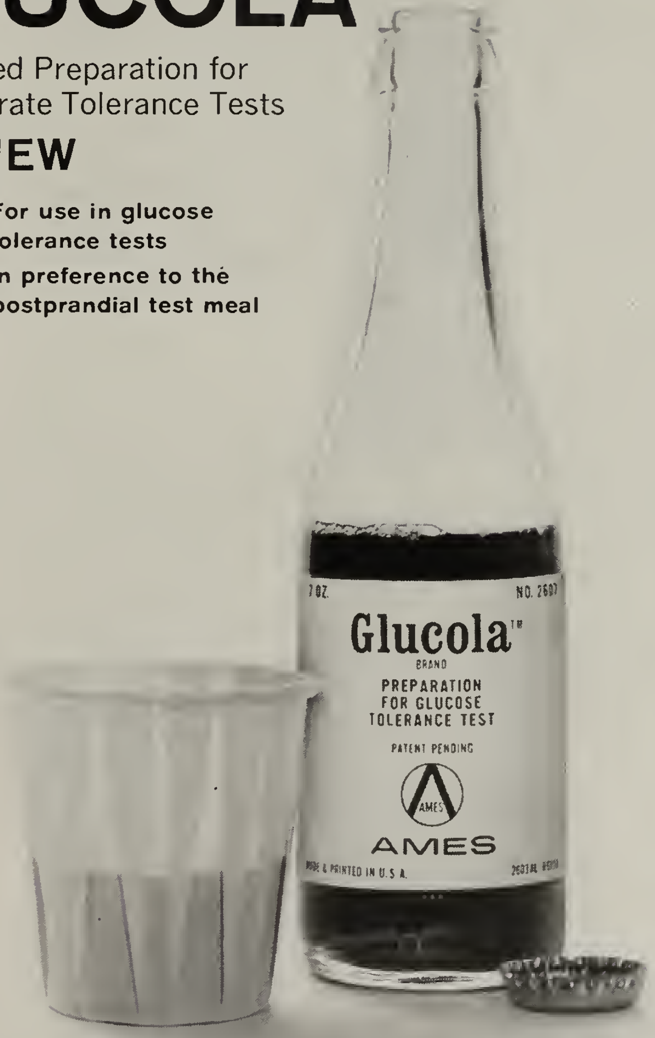

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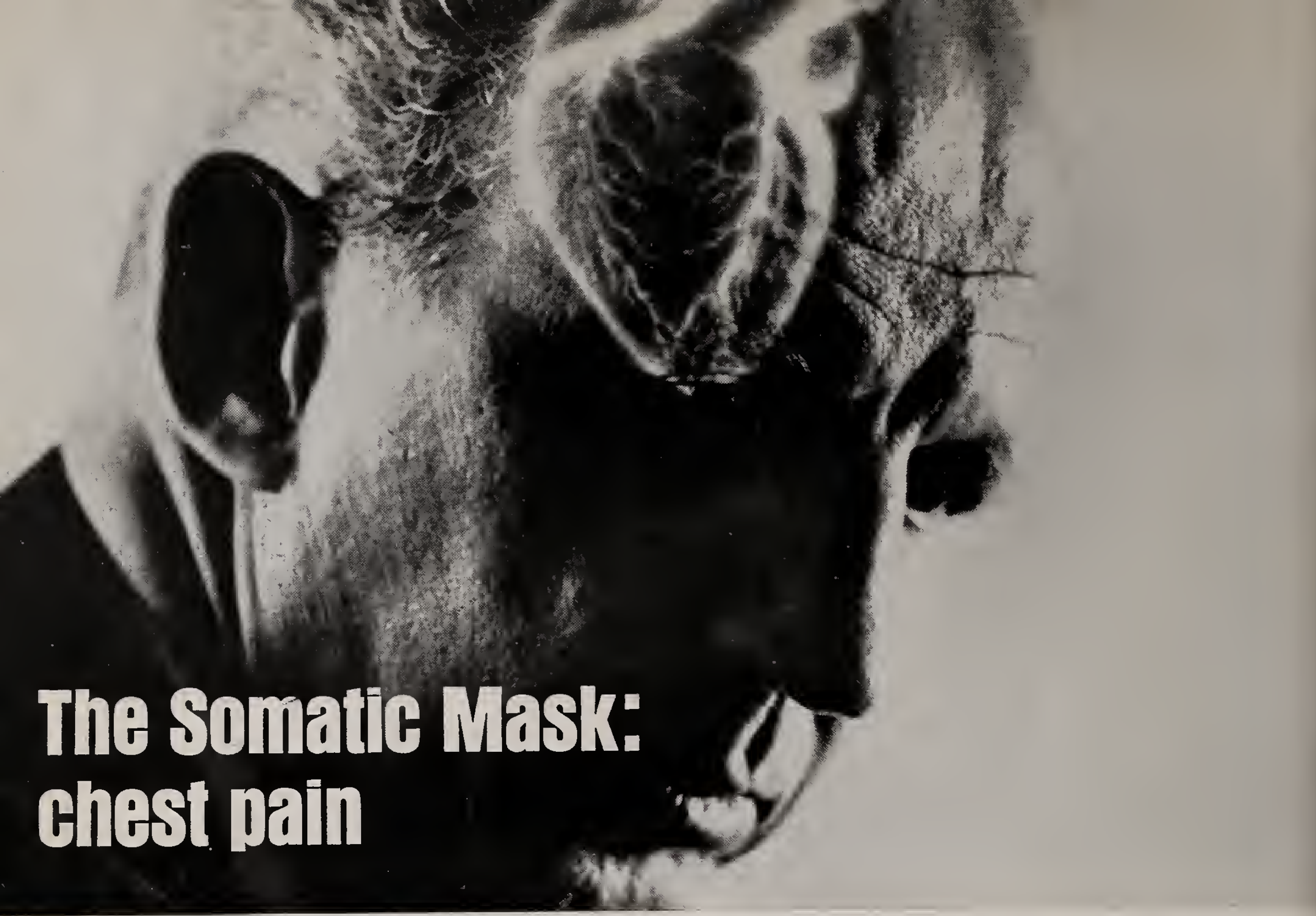

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MARCH, 1966

PENNSYLVANIA MEDICINE

IN THIS ISSUE:

HERSHEY TO BE READY FOR FIRST STUDENTS IN 1967

Ceremonial groundbreaking starts construction of first building in huge complex – Page 9

BENEFITS YOU RECEIVE UNDER SOCIAL SECURITY

You know what you'll have to pay for Social Security; here's an example of what you'll get – Page 76

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LATE News HIGHLIGHTS

MARCH, 1966

SIGN UP FOR A MEDICARE MEETING – DO IT TODAY

■ Information a physician needs about his responsibilities in the new **federal and state medicare programs** will be available in the next few weeks at seven regional State Society-sponsored conferences. Billing procedures, covered services, the role of the physician—everything of importance—will be reported. The meetings will be in **locations convenient** to every doctor in Pennsylvania (see below). The hours, 1 to 5 p.m., also were selected for convenience—and a member of the PMS may attend any of the sessions. Experts will make up the program at each session, with a keynote speech by a PMS officer, wrap-up commentary, and an adequate question and answer period. **The experts** will speak in this order: Thomas Georges, M.D., special assistant to the state secretary public welfare (Part A, the hospital portion, of medicare); Sydney E. Sinclair, M.D., vice-president—medical affairs, Pennsylvania Blue Shield (Part B, the voluntary medical insurance portion of medicare); William B. Tollen, Ph.D., state commissioner of public assistance (Title 19 of medicare, the "pennsycare" plan). The meetings are free, but a notice of intent to attend (use the postage paid postcard) is requested.

Regional Medicare Conferences

(Hours: 1 to 5 p.m.)

Northwest—Meadville, Holiday Inn, March 23
West, Southwest—Pittsburgh, Hilton Hotel, March 24
Southeast—Philadelphia, Marriott Motor Hotel, March 30
Central, South—Harrisburg, Penn Harris Hotel, March 31
Central, West—State College, Holiday Inn, April 13
Northeast—Scranton, Holiday Inn, April 17
East, Central—Allentown, George Washington Motor Lodge, April 20

NEWS FROM HARRISBURG

■ Construction of the first building in the new medical center complex at **Hershey** has started . . . Pennsylvania Blue Shield has been named medicare **Part B contractor** in this state . . . The proposed 1966-67 **state budget** includes $3 million to pay physicians the Blue Shield Plan A rates for public assistance cases . . . PMS committees will pick state **Benjamin Rush and Donaldson** medical reporting award recipients . . . The steel framework of the **new PMS building** has been erected . . . Members of the PMS **Commission on Fees** have been appointed. See the This Month and Medical Society News sections for reports on these and other stories.

OFFICERS' CONFERENCE SPEAKER

Samuel R. Sherman, M.D., left, chairman of the AMA Council on Legislative Activities, will be a featured speaker at the **1966 Officers' Conference** in Harrisburg April 28-29. To speak on criticisms facing medicine, Dr. Sherman feels that the profession should rigorously and objectively study its position and plan for a future "in which greater complexities and more difficult decisions will have to be made."

M.D. NEWS

David S. Masland, M.D., of Carlisle, and **Mrs. A. Wesley Hildreth** of Pottsville, have been named members-at-large of the Pennsylvania Medical Political Action Committee Board of Directors . . . **Robert F. Beckley, M.D.,** of Lock Haven, continues as chairman of the PaMPAC Board, **F. Gregg Ney, M.D.,** is vice-chairman, **Mrs. Kermit L. Leitner,** Harrisburg, is secretary, and **Paul S. Friedman, M.D.,** Philadelphia, is treasurer . . . **H. Robert Davis, M.D.,** of Boiling Springs, is scheduled to return from volunteer medical duty in South Vietnam this month . . . **William A. Sodeman, M.D.,** dean of Jefferson Medical College, has gone to that country to help study its health programs . . . **Joseph B. Griffith, M.D.,** of Sewickley, is the second Pennsylvania physician to take part in Project Vietnam . . . **Harry V. Armitage, M.D.,** of Chester, has been elected to an interim term on the Pennsylvania Blue Shield Board of Directors.

GENERIC OR PROPRIETARY DRUGS

The state welfare department has called a meeting of the State Medical Society, the Pennsylvania Pharmaceutical Association, and others to **"review carefully"** a federal government report which recommends that all physicians participating in the public assistance program prescribe drugs by their generic rather than proprietary names. The government report charged that the state could have saved $1.5 million in a year through generic name prescriptions. The state reported it has been working on a formulary for some months.

THIS MONTH

NATIONAL
POISON PREVENTION WEEK
MARCH 20-26 1966

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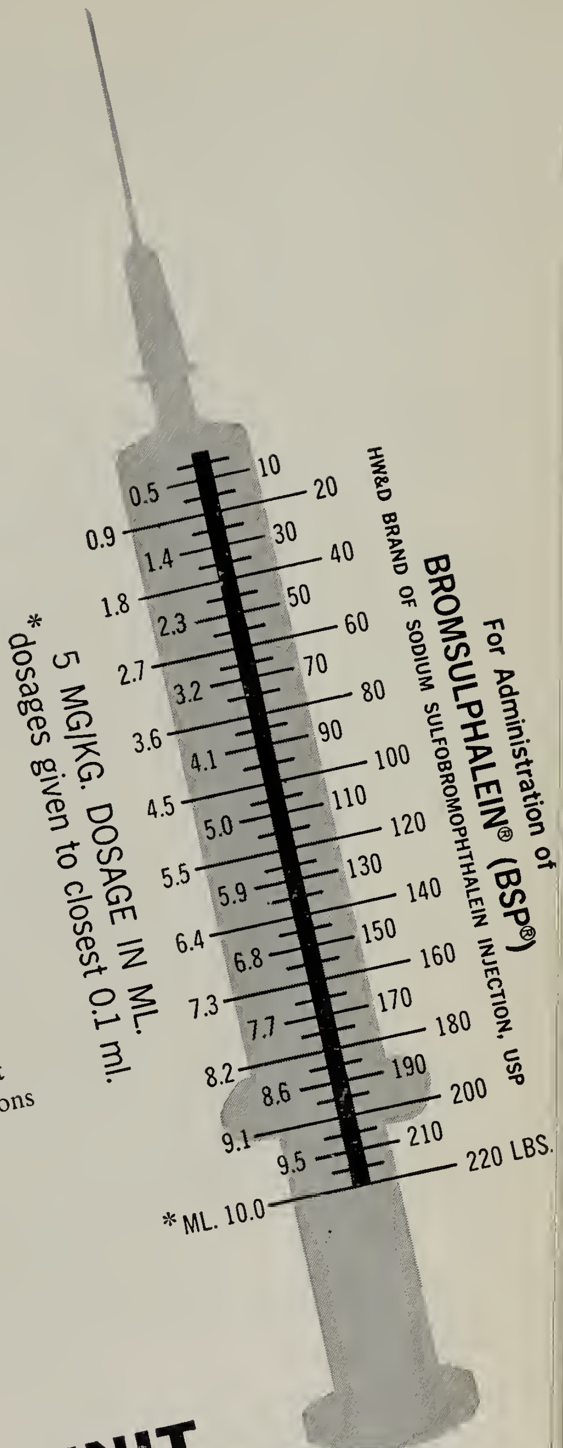

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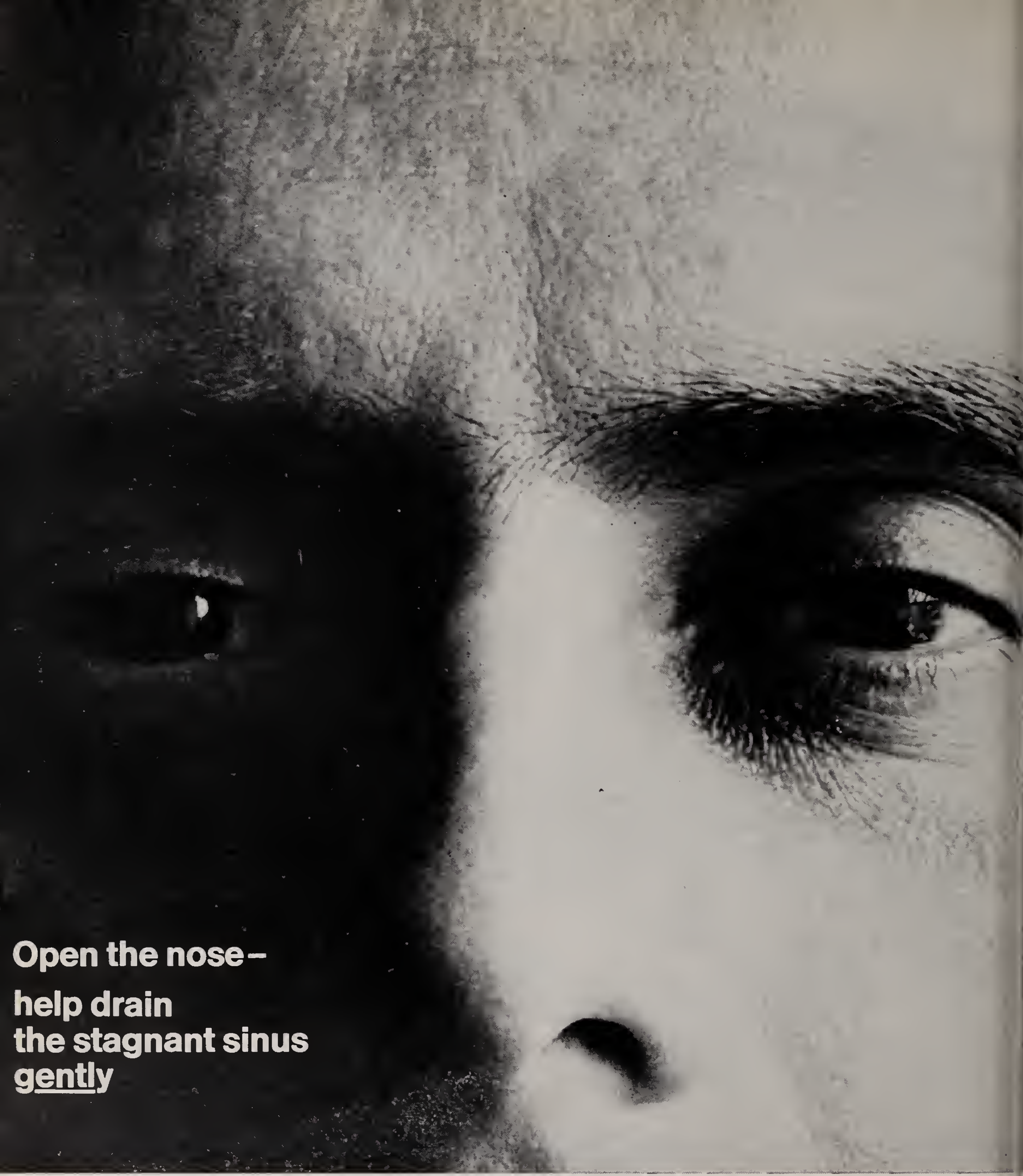

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*Proctor, D. F.: The Nose, Paranasal Sinuses, and Ears in Childhood, Springfield, Ill., Charles C Thomas, 1963, p. 34.

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MARCH, 1966 VOLUME 69 NUMBER 3

ORIGINAL PAPERS

TRAUMATIC AORTIC RUPTURE

Drs. William M. Lemmon, Thomas F. McGarry, Charles A. Syms, and Ruhi Hindawi

An industrial accident occasions severe trauma to the aorta. Excision of the damaged section, and replacement with a teflon graft, are described. Page 29.

THE ASTHMATIC CHILD

Howard G. Rapaport, M.D.

The young bronchial asthma patient is not a hopeless cripple. He can be helped, and can learn to "live with his condition," under the watchful care of the allergist. Page 38.

IMPLICATIONS OF HEPATIC COMA

Ralph M. Myerson, M.D.

Liver disease often involves cerebral factors, with the patient evidencing torpor, apathy, or aberrations, and/or losing consciousness. Page 46.

TETANUS IMMUNIZATION, 1965

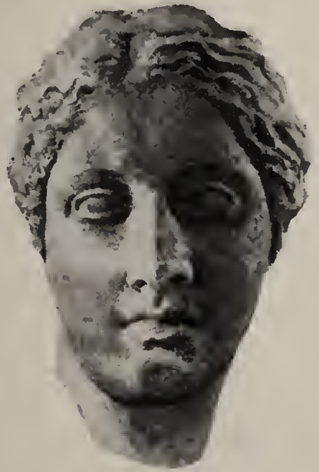
William T. Lampe, II, M.D.

One hundred York County physicians helped implement an inoculation project involving 93,500 total doses of tetanus toxoid. The program is reported and evaluated. Page 50.

ECTOPIC PREGNANCY FATALITIES

John R. Bowers, B.A.

A senior medical student's eight weeks of poring over mortality records in the Philadelphia Medical Examiner's office convince him that about half the deaths from ectopic pregnancy complications could be prevented. Page 54.



Our Cover Girl

■ Symbolizing the age-old concerns of humanity's well-being is the Greek goddess Hygieia, pictured on our new cover. The Goddess of Health, a daughter of the legendary Aesculapius, assisted in ancient temple rites and fed the sacred snakes immortalized in the serpent-entwined staff—traditional medical symbol. The unknown sculptor who created this resposeful marble beauty (generally accepted as a representation of the beloved Hygieia), captured the classic loveliness one would expect to find in a goddess. Widely admired as sculpture, and loved for the lofty ideals it connotes, this head of Hygieia has been copied many times, and graces homes throughout Europe and the Americas. We chose it to grace the cover of Pennsylvania Medicine because it epitomizes all that is finest in the world of health care.

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COVER PHOTO

■ Model of the $21 million medical sciences building and 350-bed teaching hospital, the two buildings to be constructed first at the site of the multimillion dollar Milton Hershey Medical Center near Hershey, Pennsylvania. Also ready for immediate development is a nearby 50-acre animal research farm tract. For a report on groundbreaking ceremonies at the site February 26, see page 9.

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THIS MONTH

Pennsylvania Medicine

Heart Group Ready for Microcirculation Study

Final plans are being made for the fifth national symposium on "The Microcirculation," at the Sheraton Hotel, Philadelphia, March 10-11.

Speakers from throughout the country and abroad will speak at the two-day session, sponsored by the Heart Association of Southeastern Pennsylvania.

P. I. Branemark, M.D., associate professor of anatomy at the University of Gothenburg, Sweden, will moderate the first session on the program, "Functional Anatomy of the Microcirculation."

On the same day, Paul Nicoll, Ph.D., professor of physiology at Indiana University Medical Center, will moderate a panel on physiologic considerations of the microcirculation.

Ready for discussion on the second day are such topics as the capillary wall, and regional studies and disorders of the microcirculation.

Blue Shield Named Medicare Contractor in State; Blue Cross Plans for Aged Offered

The Medical Service Association of Pennsylvania has been named to serve as contractor in this state to pay doctor bills under the optional Part B of the medicare program.

The Social Security Administration selected thirty-two Blue Shield plans, fifteen insurance companies, and one independent health insurer as contractors to serve various parts of the country.

Contractors will receive and pay physicians' bills of older people enrolled in the voluntary medical insurance plan under one-year contracts, subject to renewal upon satisfactory performance.

The Social Security Administration said the individual contractor's primary responsibility will be to pay the "reasonable charges for physician and other health services."

"In determining reasonable charges," the SSA said, "the contractors will consider the usual and customary charges made by physicians, as well as the prevailing rates in the area for similar services.

MEDICARE PART B DEADLINE NEAR

■ March 31 is the deadline for persons who reached age 65 before the beginning of this year to enroll in the voluntary part of medicare which will pay 80 percent of the older person's doctor bills, plus a variety of other medical services above an annual deductible of $50.

"Contractors will also be concerned with safeguards against unnecessary utilization of covered services . . ."

'65-Special' Contracts

Two state Blue Cross plans announced last month that they would offer "65-Special" contracts to the aged to supplement the medicare plan which goes into effect July 1.

Greater Philadelphia Blue Cross said it would charge $1.95 per person per month for the policy; Capital Blue Cross set a rate of $2.00.

The contracts offered by the two plans were similar.

Capital Blue Cross said its contract will include:

1. Payment of the first $40 of in-patient hospital expense.
2. Payment of $10 a day from the sixty-first through the ninetieth day of hospitalization.
3. Thirty additional days of in-hospital benefits after the ninety days available under medicare have been exhausted.
4. Coverage of certain specialists' services when provided and billed as a hospital service.
5. Coverage of outpatient emergency accident care and outpatient surgery cases.
6. Payment of the first $20 of hospital charges for outpatient diagnostic services.
7. Extension of benefits to include hospitals outside the United States.

Funds in State Budget for Plan A Rates

Governor William Scranton's proposed 1966-67 general fund budget includes nearly $3 million in public assistance services to increase payment for physicians' visits to equal Blue Shield Plan A rates.

The funds are part of the $4,478,600 recommended for improvements in the new medical assistance program (pennsycare), which went into effect January 1.

This amount also includes $1.5 million to increase old age assistance grants $3.00 per month to cover the cost of medicare's Part B.

Some $88,000 is recommended for increased operational staff for pennsycare.

A special appropriation of $12 is recommended in the budget for implementation of the comprehensive mental health and mental retardation plans.

With increased state and federal funds, this special appropriation would provide some $30 million more than is currently being spent for mental health and retardation work.

The budget provides for some $16 million in state and federal funds that would "significantly advance" the quality of services at the state's nineteen mental hospitals and nine schools and hospitals for the mentally retarded.

The increased aid also allows for improvement of local mental health services.

A $52 million budget for the state department of health includes $300,000 for an alcoholism treatment center at Eagleville and funds for phenylketonuria (PKU) testing of newborns.

Groundbreaking Inaugurates Hershey Medical College, State's Newest

Notables' ceremonial spade-work brings construction of mid-Pennsylvania center one step closer to realization.

A February 26 groundbreaking at the future Pennsylvania State University-Milton S. Hershey College of Medicine site, a 222-acre tract just outside Hershey, officially launched construction of the state's seventh medical school.

Taking part in the event, with George T. Harrell, Jr., M.D., dean of the school, were: Eric A. Walker, Ph.D., president of The Pennsylvania State University; Samuel F. Hinkle, retired president and chairman of the board, Hershey Chocolate Corporation, who is also chairman of the medical center committee, Hershey Trust Company, and trustee for the M. S. Hershey Foundation; Roger W. Rowland, president of The Pennsylvania State University board of trustees; and Arthur R. Whiteman, president, Hershey Trust Company. Also participating were representatives of organized medicine, the federal Public Health Service, and the state government.

On Schedule

The occasion pointed up the fact that Dr. Harrell and his associates, by means of PHS appropriations to supplement the Hershey Foundation's initial $50 million gift, are maintaining the timetable they set for themselves months ago, with September, 1967, as a target date for matriculation of the institution's first group of students.

With an initial class of forty anticipated, interviews with prospective students are already in progress. Admissions will be increased as time goes on, a total enrollment of 250 planned for 1972. A program of financial assistance for needy students will be set up, probably in the form of a rotating loan fund.

Candidates for faculty membership are being considered. Dr. Harrell hopes to have the first of the corps of teachers on duty by July of this year, to interview and counsel young people applying for admission and to help implement the framework of the curriculum.

Initial construction will be on the first section of the $19 million medical sciences building, an arc-shaped limestone structure which, when completed, will be eight hundred feet long and seven stories high and will house teaching laboratories, lecture rooms, individual study cubicles, and a library. Self-contained but intercommunicating sections will be devoted to specific areas of medicine. The building's format is geared to small class or laboratory groups, informal discussions between class periods (in "common rooms" adjacent to classrooms), and maximum rapport between faculty members and individual students.

The building and its future adjunctive units will be functional rather than ornate. The architects designed the structure to accommodate plans for teaching features and facilities which have grown out of conferences of Dr. Harrell and his colleagues.

A 350-bed teaching hospital is among plans expected to be brought to reality within two years after completion of the medical sciences building.

An August groundbreaking is anticipated for the medical school's animal research farm. Connected with the main building by an underground passageway as well as by open-air walkways, it will be the only such American facility within walking distance of a medical school's main buildings.

Library in Operation

Already functioning is a library of 22,000 volumes and 1,305 scientific journals. Temporarily housed in the Hershey Community Center, it will eventually be an integral part of the medical center complex. Open to any physician wishing to use it, the library draws medical men from a wide area, in addition to furnishing scientific information by mail.

Living quarters being planned include apartments to be built for married students and their spouses, and rooms for thirty-five unmarried students in one of the large residences formerly occupied by orphaned boys fostered by the Hershey Foundation.

PLOTTING A CURVE—Planned future arc-shaped main building at M. S. Hershey Medical Center, as depicted in architect's sketch. Recent groundbreaking set action in motion for first stage of construction—the section at far right, above. Seen at left, rear, is portion of cross-shaped hospital wing, completion of which is planned for 1969.

Cell Membranes Woman's Forum Topic

Four noted researchers in the field of cell structure and function will be guest speakers at the twelfth Annual Forum sponsored by The Woman's Medical College of Pennsylvania March 12, at the Eastern Pennsylvania Psychiatric Institute Auditorium adjacent to the college.

Dr. F. S. Sjostrand, University of California, will present "Ultrastructure of Cell Membranes"; Dr. David E. Goldman, Bethesda Naval Medical Research Institute, "Biophysical Functioning of Membranes"; Dr. Donald J. Hanahan, University of Washington, "Lipid-Protein Complexes of Membranes: Chemical and Biochemical Nature"; and Dr. Albert L. Lehninger, Johns Hopkins University, "Biochemical Functioning of Membranes."

Chairmen of the sessions are Lloyd Barr, professor of physiology, and Edward J. Masoro, professor and chairman of the department of physiology at Woman's. Bernard Sigel, M.D., associate professor of surgery at the medical college, is program chairman, and Glen R. Leymaster, president and dean, will bring greetings during the forum's opening session.

Inquiries regarding the forum should be addressed to the college, 3300 Henry Avenue, Philadelphia 19129.

Practice Tip

Keep an Eye on Your Reading Racks

■ **COPIES OF general, specialty, and socioeconomic medical publications which you receive may be finding their way into your waiting room. As a general rule, your patients should not see these publications because of their special content. If you agree, check the reading racks in your waiting room now and tell your assistants specifically which magazines you want there and which ones you don't.**

Einstein Center Sets Vascular Disease Session

Some five hundred physicians from throughout the country are expected at a three-day symposium on vascular disease at Philadelphia's Bellevue Stratford Hotel March 28-30.

The symposium will be the clinical high point of the center's current centennial observance.

Thirty-eight scientific papers have been scheduled by the sponsor, Philadelphia's Albert Einstein Medical Center.

Topics to be discussed include diagnostic procedures, obstructive and inflammatory disease of venous and lymphatic systems, aneurysm, arterial embolism, coagulation and biophysical aspects of vascular disease, renovascular hypertension, and extracranial cerebrovascular disease.

Advance registration is required. Contact Aaron D. Bannett, M.D., Symposium Office, Albert Einstein Medical Center, York and Tabor Roads, Philadelphia, Pennsylvania 19141.

Skin Carcinogenesis

Temple University Health Sciences Center will present a symposium on skin carcinogenesis March 16 to commemorate the opening of the new Skin and Cancer Hospital.

The final presentation will be the third annual Harry Shay Memorial Lecture by Eugene VanScott, M.D., director of intramural research at the National Cancer Institute.

REX MORGAN, M.D.
By DAL CURTIS
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PHS Aids State's Health Units; Other Fund News

- Development and expansion of home health services by the state department of health has been given added impetus by a $504,000 grant from the U.S. Public Health Service. Citizens over sixty-five years of age will benefit from the services, under medicare, according to Charles L. Wilbar, Jr., M.D., state secretary of health.

- The Office for the Aging, Pennsylvania Department of Public Welfare, has received a $203,500 allotment from the HEW Administration on Aging. This fund will underwrite basic services and employment opportunities for older people.

- Trustees, administrative personnel, faculty, and other groups have given $453,000 toward a goal of $1.25 million for physical renovation and educational program improvement at the Temple University Hospital and the schools of medicine, dentistry, and pharmacy.

- Research to Prevent Blindness, Inc., has awarded $5,000 to the University of Pennsylvania, in addition to $25,000 previously given. The unrestricted grant is for eye research.

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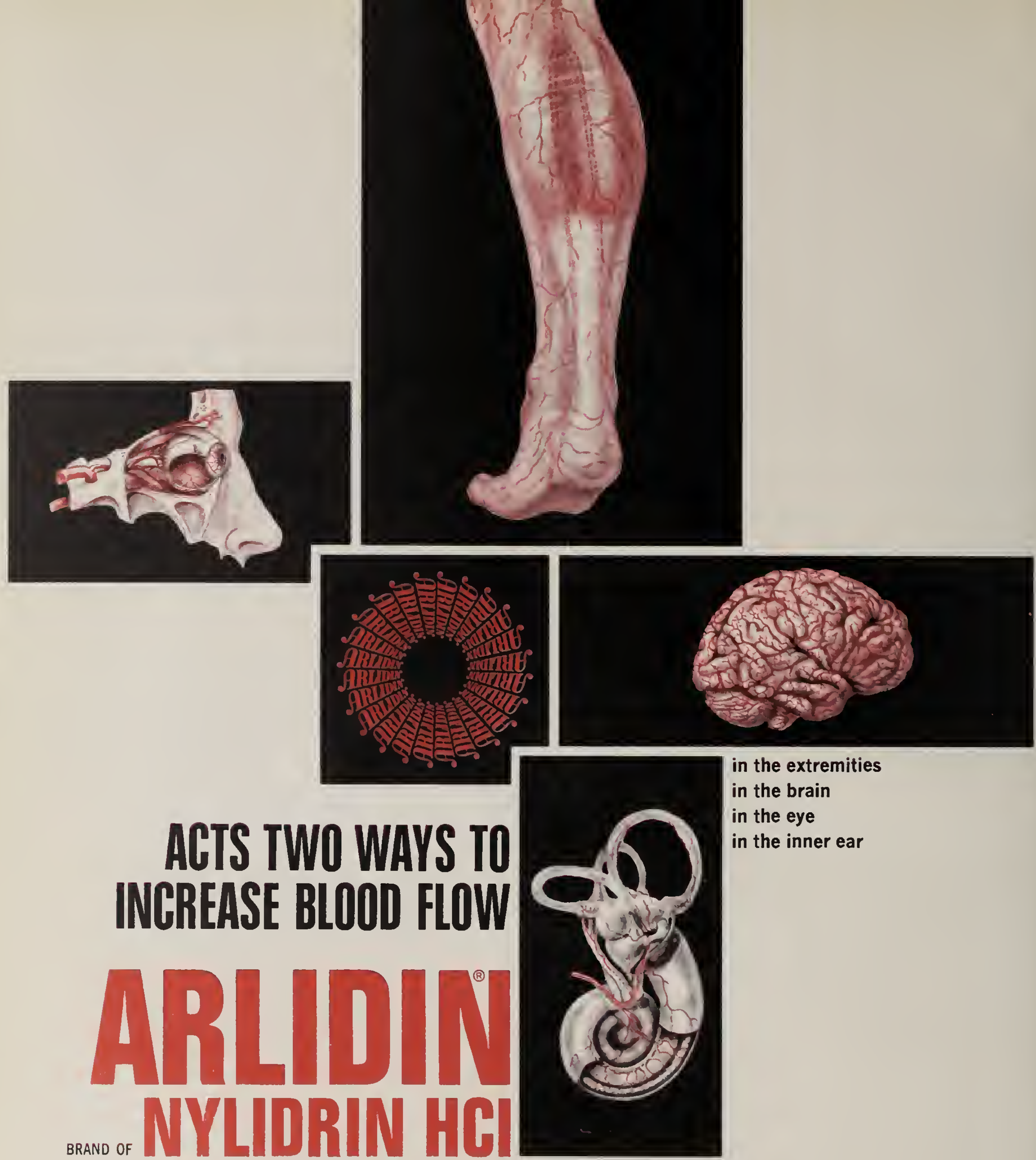

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Large Cities High in TB

With 915 active tuberculosis cases reported in Philadelphia in 1965, and 460 in Allegheny County, urban areas of Pennsylvania continue to have the greatest number of active cases. Coal-mining areas also rank high on the list, as follows:

Luzerne County, 113 cases; Schuylkill, 64; Westmoreland, 52; Lackawanna, 47; Beaver, 44; Cambria, 40; Fayette, 35; Northumberland, 34; Washington, 30; and Somerset, 18.

Although no county reported having no cases, Cameron, Fulton, Jefferson, Pike, and Union had only one each.

Statewide statistics indicate that the disease is steadily declining; from "top spot" as a killer 65 years ago, it has fallen to thirteenth place—due to research, new medications, and improved health education.

It will be some time, however, before the disease is completely eradicated, according to Harold E. Coder, M.D., director of the state tuberculosis control division.

• Educational approaches to the postgraduate teaching of psychiatry to physicians, other than the use of formal courses and discussion groups, will be considered at the fifth annual Colloquium for Postgraduate Teaching of Psychiatry sponsored by the Committee on Psychiatry in Medical Practice of the American Psychiatric Association, March 26-27 at the Marriott Motor Hotel, Philadelphia.

Most of State a Part of Appalachia; Unit Weighed for Handling Problems

With nearly three-fourths of Pennsylvania's area included in the "poverty-pocket" category of Appalachia, a commission to administer aid may be set up in western counties, according to Charles L. Wilbar, Jr., M.D., state secretary of health.

One aspect of services to deprived citizens of Appalachia is a $69 million health care program set up under the Appalachian Regional Development Act of 1965. Criteria and guidelines, submitted by the 24-member Appalachian Health Advisory Committee, have been adopted by the Appalachian Regional Commission, a federal agency.

Certain Pennsylvania counties may be among areas slated for establishment of regional health centers.

Among committee members evaluating problems and their possible solutions is Wilbur E. Flannery, M.D., New Castle, a past president of the State Society.

Assistants Praised

The Pennsylvania Association of Medical Assistants has been praised by the Commissioner of Mental Health, William P. Camp, M.D., and Madolin E. Cannon, director of volunteer services, for its cooperation in treatment programs throughout the state.

Two local units were active at state mental hospitals, making donations during holiday seasons and throughout the year.

In a letter to Mrs. Thelma Jones, PAMA president, Miss Cannon said "your local leadership has worked closely with our staffs, and a sound basis for future participation is developing."

• Pennsylvania was second in the nation at the close of 1965 in the number of graduates from medical self-help training courses.

One for the Girls

May 13, 14, and 15 are the dates for the annual meeting of the Pennsylvania Association of Medical Assistants. Johnstown will be the site of the series of business, educational, and social events.

Unique Haverford Plan to 'Groom' Physician Hopefuls

Backed by a $450,000 grant from the Rockefeller Foundation, Haverford College will administer a nationwide experiment to upgrade the preparation of selected college graduates for admission to first-rate professional and graduate schools.

Tagged "Broadening Opportunities," the plan will provide scholarship aid to high-ability young men and women with baccalaureate degrees whose earlier education has been judged inadequate.

Students selected will spend two terms studying at Haverford or at one of six or seven other liberal arts colleges, and at least one summer at Haverford.

Dr. William E. Cadbury, Jr., director, said that in the area of medical education the lack of early educational opportunities is particularly damaging, since the study of science depends so heavily on good early preparation.

"Students whose early education has been inadequate are particularly likely to be excluded from the medical profession," he claims.

"Since the life of a doctor is a rewarding one, this is unfair to them. Society," he added, "also suffers to the extent that such exclusions deprive society of the services of effective physicians.

"We propose to make a special effort to find for this program young people who, with extra training, can succeed in medical school, or for whom the extra training will mean the difference between attending a weak medical school or a strong one."

Hahnemann Symposium

The sixteenth symposium of Hahnemann Medical College and Hospital April 27-30 at the Marriott Motor Hotel, Philadelphia, will focus on atherosclerotic vascular disease.

Directors of the session plan a program that will take a broad look at atherosclerosis—including its genesis, pathophysiology, and clinical consequences.

Lectures will be followed by panel discussions throughout the symposium.

Topics to be covered include the atherosclerotic plaque, factors contributing to atherogenesis, hyperlipidemia, coronary artery disease, renovascular hypertension, extracranial cerebrovascular insufficiency, and peripheral vascular insufficiency.

For information, write Wilbur W. Oaks, M.D., director, Continuing Education Program, Hahnemann Medical College and Hospital, 230 North Broad Street, Philadelphia, Pennsylvania 19102.

• In 1965, some 190,000 reprints of Pennsylvania Medical Journal articles were ordered.

Hahnemann Cardiovascular Career Course

Ten medical college and ten college students will be accepted for a Hahnemann Medical College ten-week study and orientation course in cardiovascular disease next summer, according to Victor P. Satinsky, M.D., research associate professor of surgery. Course planners anticipate that these twenty young people will continue to participate in the summer training programs for the ensuing three to five years.

Each participant will receive a $600 stipend, with travel and maintenance grants awarded as indicated.

High ability students interested in the program should contact Dr. Satinsky at 230 North Broad Street, Philadelphia 19102.

Mind As a Tissue

The fifth international research conference of Lankenau Hospital, Philadelphia, to be held at the hospital November 10-11, will be concerned with "Mind As a Tissue."

The four conference topics will be: neurophysiological mechanisms underlying behavior, psychopharmacology, biophysiological studies in psychoses, and biological aspects of psychiatry.

Registration will be limited to four hundred. Write Division of Research, The Lankenau Hospital, Lancaster and City Line Avenues, Philadelphia, Pennsylvania 19151.

Eye Ills Round Table Set

The second annual Pittsburgh Ophthalmological Round Table will be held at Seven Springs April 30, featuring discussions on plastic surgery, pediatric ophthalmology, vascular fundus diseases, and neuroophthalmology.

Details are available from E. Kenneth Vey, M.D., 355 Fifth Avenue, Pittsburgh 15222.

2,700 May Be Diabetic

In diabetes screening tests conducted at clinics in 29 counties, the Pennsylvania Department of Health has detected the possibility that the disease exists in more than 2,700 persons. Names of these individuals have been sent to their family physicians for diagnostic follow-up, according to Charles L. Wilbar, Jr., M.D., state secretary of health.

'Bras That Fit Over Tiny Doll Breasts'

The real problem in sex education "is the fact that young people from twelve to eighteen years of age are having sex younger and younger," according to Mary S. Calderone, M.D., executive director of the Sex Information and Education Council of the United States.

Speaking at a forum sponsored by the Women's Auxiliary of Philadelphia's Albert Einstein Medical Center in January, Dr. Calderone described today's teenagers as "overstimulated, overfree, underprotected, and undereducated."

"Mothers look upon the popularity and dating patterns of their children as status symbols," she said.

She added that many children have asked her whether mothers could be deterred from pushing early dating on their daughters.

"And all of us know that it is very difficult nowadays to buy a baby-doll. The proper doll, if you are 'in' at all, is one that wears sophisticated adult clothing, including bras that fit over tiny doll breasts."

Dr. Calderone called on communities to hold open discussions among young people, parents, and professionals to determine what kind of sex education will best fit each community's needs.

Cobalt Unit at Oncologic

Newly installed at American Oncologic Hospital, Philadelphia, is a cobalt 60 teletherapy unit, replacing the supervoltage x-ray generator in use since 1948 which will be displayed in the Countway Library Museum, Harvard University.

The new unit is designed to reduce halation from the radiation beam, thus protecting normal tissue. In addition, a special beam-defining device designed by the hospital's radiologists enables them to use "split field" techniques, another precaution in behalf of normal tissue.

The hospital, the only one in Pennsylvania exclusively treating cancer and allied diseases, is one of only nine such institutions in the United States.

DEPROL®

meprobamate 400 mg. +
benactyzine hydrochloride 1 mg.

Indications: 'Deprol' is useful in the man
ment of depression, both acute (reactive)
chronic. It is particularly useful in the
severe depressions and where the depressio
accompanied by anxiety, insomnia, agitat
or rumination. It is also useful for managem
of depression and associated anxiety acc
panying or related to organic illnesses.

Contraindications: Benactyzine hydrochlo
is contraindicated in glaucoma. Previous a
gic or idiosyncratic reactions to meproban
contraindicate subsequent use.

Precautions: *Meprobamate*—Careful su
vision of dose and amounts prescribe
advised. Consider possibility of depende
particularly in patients with history of dru
alcohol addiction; withdraw gradually after
for weeks or months at excessive dosage. Ab
withdrawal may precipitate recurrence of
existing symptoms, or withdrawal reactions
cluding, rarely, epileptiform seizures. Sh
meprobamate cause drowsiness or visual
turbances, the dose should be reduced
operation of motor vehicles or machiner
other activity requiring alertness should
avoided if these symptoms are present. Eff
of excessive alcohol may possibly be incre
by meprobamate. Grand mal seizures may
precipitated in persons suffering from
grand and petit mal. Prescribe cautiously
in small quantities to patients with suic
tendencies.

Side effects: Side effects associated with rec
mended doses of 'Deprol' have been infreq
and usually easily controlled. These have
cluded drowsiness and occasional dizzir
headache, infrequent skin rash, drynes
mouth, gastrointestinal symptoms, paresthe
rare instances of syncope, and one case eac
severe nervousness, loss of power of con
tration, and withdrawal reaction (status epi
ticus) after sudden discontinuation of exces
dosage.
Benactyzine hydrochloride—Benacty
hydrochloride, particularly in high dosage,
produce dizziness, thought-blocking, a sens
depersonalization, aggravation of anxiety
disturbance of sleep patterns, and a subje
feeling of muscle relaxation, as well as
cholinergic effects such as blurred vision,
ness of mouth, or failure of visual accomm
tion. Other reported side effects have incl
gastric distress, allergic response, ataxia,
euphoria.
Meprobamate—Drowsiness may occur
rarely, ataxia, usually controlled by decrea
the dose. Allergic or idiosyncratic reaction
rare, generally developing after one to
doses. Mild reactions are characterized b
urticarial or erythematous, maculopapular
Acute nonthrombocytopenic purpura with
ripheral edema and fever, transient leukop
and a single case of fatal bullous derm
after administration of meprobamate and
nisolone have been reported. More severe
very rare cases of hypersensitivity may pro
fever, chills, fainting spells, angioneu
edema, bronchial spasms, hypotensive crise
fatal case), anuria, anaphylaxis, stomatitis
proctitis. Treatment should be symptomat
such cases, and the drug should not be rei
tuted. Isolated cases of agranulocytosis, th
bocytopenic purpura, and a single fatal inst
of aplastic anemia have been reported, but
when other drugs known to elicit these
ditions were given concomitantly. Fast
activity has been reported, usually after e
sive meprobamate dosage. Suicidal atte
may produce lethargy, stupor, ataxia, c
shock, vasomotor and respiratory collaps

Dosage: Usual starting dose, one tablet thr
four times daily. May be increased grad
to six tablets daily and gradually reduce
maintenance levels upon establishment of r
Doses above six tablets daily are not re
mended even though higher doses have
used by some clinicians to control depre
and in chronic psychotic patients.

Supplied: Light-pink, scored tablets, each
taining meprobamate 400 mg. and benact
hydrochloride 1 mg.
Before prescribing, consult package circul

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meprobamate 400 mg. +
benactyzine hydrochloride 1 mg.

a logical first choice

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Even when complicated by anxiety, tension, insomnia,
agitation or rumination.

- Acts rapidly.
- Side effects at recommended dosage infrequent, usually easily controlled.

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Second aid for a button popper

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WITH MEPROBAMATE
SEQUELS
Sustained Release Capsules
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By providing combined anorexigenic-tranquilizing action, BAMADEX SEQUELS Capsules help your nonshrinking patients to establish new patterns of eating less. The amphetamine component suppresses the appetite, while the meprobamate helps allay nervousness and tension. And for most patients, the *sustained* release of the active ingredients provides convenient one-capsule-a-day dosage.

Side Effects commonly associated with either component are possible but, to the extent these are dose-related, they should normally be mild and infrequent, since the total dosage of each component on the usual one-capsule-daily regimen is quite low. Also, the sedating effect of meprobamate and the stimulating effect of d-amphetamine sulfate tend, to some extent, to cancel each other out. Adverse effects not peculiar to either component have not been reported. Side effects associated with d-amphetamine sulfate include: insomnia, excitability, increased motor activity, confusion, anxiety, aggressiveness, increased libido, hallucinations, rebound fatigue, depression, dry mouth, anorexia, nausea, vomiting, diarrhea and increased cardiovascular reactivity. Effects associated with meprobamate include: skin rash, nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema, fever and transient leukopenia; also, very rarely, fainting spells, angioneurotic edema, bronchial spasm, hypotensive crisis, anuria, stomatitis, proctitis and anaphylaxis. Other serious effects have occurred after concomitant administration of meprobamate and other drugs. Massive overdosage may produce grave effects.

Precautions: BAMADEX SEQUELS should be given only under close supervision to patients hypersensitive to sympathomimetic drugs, with cardiovascular or coronary disease or who are severely hypertensive; to emotionally unstable persons and to epileptics. Patients should be cautioned not to drink alcoholic beverages while on the drug, and not to drive vehicles if they become drowsy. In all patients kept on the drug for long periods, the drug should be withdrawn gradually to avoid possible serious reactions.

Contraindications: Hyperexcitability, agitated prepsychotic states and a history of previous reactions to meprobamate.

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d-amphetamine sulfate (15 mg.) and meprobamate (300 mg.)

Sustained Release Capsules

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M.D.'s in The News

Lester M. Cramer, M.D., formerly of Rochester, New York, was recently appointed professor of reconstructive surgery in the Temple University School of Medicine, and chief of the reconstructive surgery section of the university's Health Sciences Center. He will be associated with **Octavus P. Large, M.D.**, associate professor of surgery and former section chief, and **J. Curtis Lamp, M.D.**, assistant professor of surgery.

Michael G. Wohl, M.D., Philadelphia, received the 1965 annual award of the medical alumni of the Medico-Chirurgical College of Philadelphia, "in recognition of his leadership in the field of medicine, in the specialty of nutrition, metabolism, and endocrinology, as author and teacher, and for his many scientific contributions."

At the annual meeting of the Delaware Academy of General Practice at Wilmington, Dr. Wohl received a tribute award for his many scientific contributions to medicine, and for his promotion of the scientific interests of the family physician.

Drs. **Pascal D. Spino**, Greensburg, and **George A. Hahn**, Philadelphia, are devoting two months to a trip to Nicaragua aboard the S.S. HOPE, to help minister to the medical care needs of the Nicaraguan people, and to cooperate in sharing their knowledge with medical students and practitioners in the Central American country.

Martin R. Krausz, M.D., Melrose Park, has been promoted to the rank of brigadier general in the U.S. Army Reserve Medical Corps. Dr. Krausz is an instructor in pediatrics at Hahnemann Medical College and Hospital, his alma mater, and is also on the Jeanes Hospital staff.

The new secretary of Phi Lambda Kappa Medical Fraternity and the Medical Students' Aid Society is **Abram H. Persky, M.D.**, Philadelphia. Among new regional vice-presidents is **Bernard B. Zamostien, M.D.**, Philadelphia. Trustees elected include Drs. **Abram Kanofsky** and **Benjamin H. K. Miller**, both of Philadelphia.

R. Michael Scott, Philadelphia, son of Dr. and Mrs. Michael Scott, Bala-Cynwyd, was one of twenty-two students at Temple University School of Medicine elected to Alpha Omega Alpha, national honorary medical society.

Herman Beerman, M.D., Philadelphia, is the new president of the American Academy of Dermatology.

Participating in the meeting of the medical services committee, American Society of Internal Medicine, was **Jerome C. Chamovitz, M.D.**, Sewickley, chairman of the labor-management liaison subcommittee.

Arthur B. Hamilton, M.D., Bethlehem, received a PMS Fifty-Year Award in recognition of his half-century in medicine. **James Z. Appel, M.D.**, AMA president, was among those attending the Northampton County Medical Society meeting at which **William B. West, M.D.**, PMS president, presented the plaque.

William Hawley Sewell, Jr., M.D., formerly associated with the Veterans Administration Hospital, Oteen, North Carolina, has been appointed chief of cardiac surgery at the Guthrie Clinic and Robert Packer Hospital, Sayre. A noted authority on cardiac surgery, he perfected the Sewell pedicle operation for angina pectoris, which in the United States has become the technique most widely used for this condition.

Thomas Georges, Jr., M.D., Philadelphia, will serve as a special assistant to supervise administration of Pennsylvania's part in the federal medicare program.

M. Price Margolies, M.D., Coatesville, is on a two-month tour of duty in Santa Rosa, Honduras, under sponsorship of MEDICO, a service of CARE. Dr. Margolies is a former president of the Chester County Medical Society.

Herbert V. Jordan, Jr., M.D., Camp Hill, received the $500 Seibert Award for "advancing the usefulness of the Harrisburg Academy of Medicine." **Champe C. Pool, M.D.**, Wormleysburg, past president of the Academy, made the presentation at a recent meeting of the organization.

Charles N. Chasler, M.D., Pittsburgh, received an honorable mention award at a meeting of the Radiological Society of North America, for his exhibit and accompanying paper, *The Newborn Skull.* The project has also earned commendation from several other organizations, and has been used in teaching situations.

Honored for service to the Southeastern Pennsylvania Chapter of the American College of Surgeons were Drs. **John L. Atlee, William A. Atlee**, and **John L. Farmer**, all of Lancaster.

Drs. **Daniel M. Albert** and **Harold G. Scheie**, both of Philadelphia, are the authors of the recently published *History of Ophthalmology at the University of Pennsylvania.*

Julian A. Sterling, M.D., Philadelphia, was recently elected a vice-president of the American College of Gastroenterology. Named to serve as a trustee is **Emil Gribovsky, M.D.**, Erie.

Mario A. Castallo, M.D., Philadelphia, succeeded **Kenneth E. Fry, M.D.**, also of Philadelphia, as president of the Jefferson Medical College Alumni Association.

HONOREES—Oil portraits of three former Temple University School of Medicine department chairmen were unveiled during January 31 ceremonies honoring the men for their service and leadership. From left are: Drs. John R. Moore, Philadelphia, department of orthopedics; O. Spurgeon English, Narberth, department of psychiatry; and Waldo E. Nelson, Narberth, department of pediatrics. All three will continue in professorial posts at the medical school, and will also engage in private practice. Their portraits were done by Furman J. Finck.

Many anxious patients need more than just calming. Stelazine®
brand of trifluoperazine
offers true tranquilization.

Sedative or muscle relaxant-type tranquilizers are often all that's needed for patients with temporary situational anxiety. But in the many patients whose anxiety presents a continuing problem these agents are limited by their generalized dulling effects.

'Stelazine' can attack anxiety directly without producing annoying dulling effects. On 'Stelazine', patients can react more normally to day-to-day stress yet remain alert, able to carry on their normal activities.

Contraindicated in comatose or greatly depressed states due to CNS depressants and in cases of existing blood dyscrasias, bone marrow depression and pre-existing liver damage. *Principal side effects,* usually dose related, may include mild skin reaction, dry mouth, insomnia, fatigue, drowsiness, dizziness and neuromuscular (extrapyramidal) reactions. Muscular weakness, anorexia, rash, lactation and blurred vision may also be observed. Blood dyscrasias and jaundice have been extremely rare. Use with caution in patients with impaired cardiovascular systems. Before prescribing, see SK&F product Prescribing Information.

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Postgraduate Courses

ABINGTON

Basic Science and New Techniques in Medical Disease, Abington Memorial Hospital, first Tuesday of each month, through June, 4 P.M.; 10 hours AAGP. Contact P. M. Roediger, M.D., at the hospital.

ALLENTOWN

Continuing Medical Education TV Series, New York Academy of Medicine, at Sacred Heart Hospital, first, second, and fourth Wednesdays, through June, 12 M. Contact E. K. Sipes, M.D., 24 North 18th Street (18104).

(These courses are held at Allentown Hospital, 9 A.M.–12:30 P.M., on dates indicated; each 3 hours AAGP.)

Endocrinology (Changing Concepts in Thyroid Disease),* March 10.

Dermatologic Manifestations of Systemic Disease; Misuse of Steroids,* at Allentown Hospital, April 14, 12 M.–2:45 P.M.; 3 hours AAGP.

Pediatrics (The Limping Child),* May 12.

ALTOONA

(These courses are held at Altoona Hospital, 10 A.M.–12:30 P.M., on dates indicated; each 2 hours AAGP; fee, $5.00.)

Obstructive Pulmonary Disease,* March 17.

Tuberculosis and Unclassified Mycobacteria: Current Clinical,* April 7.

Postoperative Pulmonary Complications: Prevention and Management,* April 21.

Positive Approach to Strokes* (at Mercy Hospital), May 5, same hours, etc., as other Altoona courses listed.

BETHLEHEM

(These courses are held at St. Luke's Hospital, 8:30 A.M.–12 M., on dates indicated; each 3 hours AAGP.)

Diabetes,* March 17.

Diabetics (Treatment of Ketoacidosis and Hypoglycemia),* April 21; fee, $7.00.

Diabetes (Problems of Diabetic Children),* May 19; fee, $7.00.

JOHNSTOWN

(This course is held at Conemaugh Valley Memorial Hospital, 10 A.M.–12 M.; 2 hours AAGP.)

Newer Antibiotics,* March 19.

(This course 7–9 P.M.):

Recognition and Management of Functional Disease,* April 28.

LANCASTER

Medical Seminars, Lancaster General Hospital and Temple University Medical Center, at Lancaster Hospital; no registration fee; luncheon, seventy-five cents; AAGP accreditation; meet at 11 A.M., each date: March 16, "Patients Who Trouble You"; April 7, "Advantages of Limited Gastrectomy and Vagotomy in the Treatment of Peptic Ulcer"; April 20, "The Physical Diagnosis of Heart Disease"; May 5, "The Patient with Multiple Injuries"; May 18, "Glucose and Fatty Acid Metabolism in Diabetes Mellitus." Contact Henry W. Miller, M.D., 525 North Duke Street (17602).

McKEES ROCKS

(These courses are held at Ohio Valley General Hospital, 9 A.M.–12:15 P.M. on dates indicated; fee, $6.00; each 3 hours AAGP.)

Autoimmune and Collagen Diseases; Malabsorption Syndrome,* March 30.

Management of the Jaundiced Patient—Medical and Surgical,* May 25.

PHILADELPHIA

Microsurgery of the Temporal Bone, Temple University School of Medicine, first week of each month. Contact B. J. Ronis, M.D., Temple University School of Medicine, Broad and Ontario Streets (19140).

Clinical Symposium on Vascular Disease,† at Albert Einstein Medical Center, March 28–30, 9 A.M.; 15 hours AAGP. Contact A. D. Bennett, M.D., Einstein Medical Center, York and Tabor Roads (19141).

Family, Sex, and Marriage Problems in General Practice,* at Philadelphia Marriage Council on Wednesdays, March 30–May 4, 3:30–5:30 P.M.; 12 hours AAGP. Contact Martin Goldberg, M.D., School of Medicine, University of Pennsylvania (19104).

Arterial Occlusive Disease (16th Hahnemann Symposium),* at Marriott Motor Hotel, April 20–23. Contact Miss Sage Rosen, 230 North Broad Street (19102).

Postgraduate Institute—Philadelphia County Medical Society, at Bellevue Stratford Hotel, March 22–25, 9 A.M.–5:30 P.M.

Atherosclerotic Vascular Disease, 16th Hahnemann Symposium, at Marriott Motor Hotel, April 27–30, eight hours daily; 32 hours AAGP. Contact A. N. Brest, M.D., Hahnemann Medical College, 230 North Broad Street (19102).

16th Hahnemann Symposium: Atherosclerotic Vascular Disease, at Marriott Motor Hotel, April 27–30. Contact Dr. Brest, as above.

The Physiologic Aspects of Cell Membranes, at Woman's Medical College of Pennsylvania, March 12, 9 A.M.–4:30 P.M.; 4 hours AAGP. Contact Bernard Siegel, M.D., Woman's Medical College (19129).

Internal Medicine in Light of Recent Developments, American College of Physicians, at Pennsylvania Hospital, May 9–13; fee, ACP members—$60, nonmembers—$100. Contact E. C. Rosenow, Jr., M.D., Executive Director, 4200 Pine Street (19104).

Clinical Electrocardiographic Interpretation, Hahnemann Medical College and Hospital, Thursdays, 6–9 P.M., through April 21. Contact L. S. Dreifus, M.D., director, 230 North Broad Street (19102).

9th Annual Institute of Neurology, Philadelphia AGP and Philadelphia Neurologic Society, at Veterans Administration Hospital, Coatesville, April 1, 1–5 P.M.; 4 hours AAGP. Contact B. W. Jenkins, M.D., coordinator, 230 North Broad Street (19102).

Advances in the Management of Menstrual Dysfunctions,* at Jefferson Medical College, April 1–2, 9 A.M.–5 P.M.; fee, $30; 13 hours AAGP.

Joint Meeting, Pennsylvania Chapter of American College of Chest Physicians, Pennsylvania Thoracic Society, and Pennsylvania Tuberculosis and Health Society. At Buck Hill Falls Inn, April 14, starting at 9 A.M.; 4 hours AAGP. Contact J. B. Cady, M.D., 311 South Juniper Street (19107).

Animal and Clinical Pharmacologic Techniques in Drug Evaluation, Hahnemann Medical College and Hospital, at Marriott Motor Hotel, May 16–20. Contact P. E. Siegler, M.D., director, 230 North Broad Street (19102).

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Here is the Abbott anorectic program designed to meet the individual needs of your overweight patients.

ABBOTT

mood elevation

DESOXYN® Gradumet® (methamphetamine hydrochloride)

Smooth appetite control plus mood elevation.

The obese patient on a diet often has to battle depression as well as overweight. Desoxyn Gradumet helps the dieter in both battles by elevating the mood while it curbs the appetite. Thanks to the Gradumet, medication is smoothly released all-day from a single oral dose.

If she can't take plain amphetamine, put her on DESBUTAL® Gradumet

Calms anxieties; controls compulsive eating.

Desbutal Gradumet provides 2 drugs in 2 tablet sections, combined back to back to form a single tablet. One section contains Desoxyn to curb the appetite and lift the mood; the other contains Nembutal® (pentobarbital) to calm the patient and counteract any excessive stimulation.

Both drugs are released in an effective dosage ratio throughout the day.

controlled release

Not all long-release vehicles are the same. Here is why the Gradumet is different and what it means for your overweight patients.

The release action is purely physical and relies on only one factor common to every patient: gastrointestinal fluid. There is no dependence on enteric coatings, enzymes, motility, or an "ideal" ion concentration in the gastrointestinal tract.

Your patients get a measured amount of medication, moment by moment, throughout the day.

They are not subjected to ups and downs of drug release . . . or to erratic release from patient to patient . . . or to erratic release in the same patient from day to day.

That's why the Gradumet provides controlled-release as well as long release.

Perhaps you saw the Gradumet model demonstration which shows that the release is entirely physical. When fluid is added, the drug in the outer ends of the channels dissolves. As fluid penetrates deeper into the channels, there is a continuous release of medication. The rate of release is rigidly controlled by the size and number of channels.

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5 mg. 10 mg. 15 mg.

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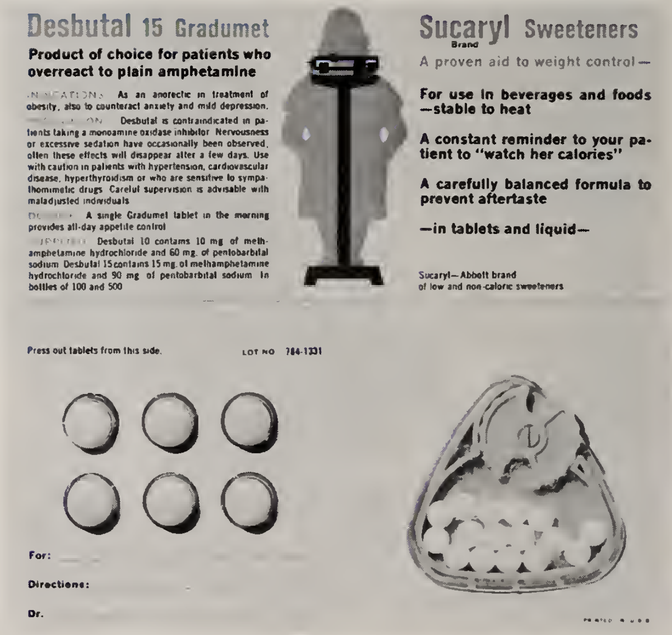
DESBUTAL 15 Gradumet
15 mg. Methamphetamine Hydrochloride,
90 mg. Pentobarbital Sodium

Front Side

samples available

Each sample contains 6 tablets and a filled Sucaryl® Sweetener dispenser. For a supply, write Abbott Laboratories or ask your Abbott man.



Desbutal 15 Gradumet

Product of choice for patients who overreact to plain amphetamine

As an anorectic in treatment of obesity, also to counteract anxiety and mild depression.

Desbutal is contraindicated in patients taking a monoamine oxidase inhibitor. Nervousness or excessive sedation have occasionally been observed, often these effects will disappear after a few days. Use with caution in patients with hypertension, cardiovascular disease, hyperthyroidism or who are sensitive to sympathomimetic drugs. Careful supervision is advisable with maladjusted individuals.

A single Gradumet tablet in the morning provides all-day appetite control.

Desbutal 10 contains 10 mg. of methamphetamine hydrochloride and 60 mg. of pentobarbital sodium. Desbutal 15 contains 15 mg. of methamphetamine hydrochloride and 90 mg. of pentobarbital sodium. In bottles of 100 and 500.

Press out tablets from this side. LOT NO 784-1331

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A proven aid to weight control—

For use in beverages and foods—stable to heat

A constant reminder to your patient to "watch her calories"

A carefully balanced formula to prevent aftertaste

—in tablets and liquid—

Sucaryl—Abbott brand of low and non-caloric sweeteners

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Patients, in many cases, save enough to get five weeks of medication for the price of four, compared to other leading long-release anorectics.

CONTRAINDICATION: Desoxyn and Desbutal are contraindicated in patients taking a monoamine oxidase inhibitor.
PRECAUTIONS: Use with caution in patients with hypertension, cardiovascular disease, hyperthyroidism, old age, or those sensitive to sympathomimetic drugs or ephedrine and its derivatives. Careful supervision is advisable with maladjusted individuals.

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Gradumet—long-release dose form, Abbott: U.S. Pat. No. 2,987,445.
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POTTSVILLE

(These courses are held at Pottsville Hospital, 11:30 A.M.–2 P.M., on dates indicated; each 3 hours AAGP.)

The Treatment of Obesity,* March 10.

Current Concepts in Gout, April 14.

Diagnosis, Management of Pelvic Pain,* May 12.

When Is Lung Cancer Curable?* June 9.

SCRANTON

(These courses are held at Mercy Hospital, 9:30 A.M.–12 M., on dates indicated; each 3 hours AAGP.)

Management of Renal Failure,* March 16.

Management of Menstrual Disease,* April 20.

Advances in Diabetes,* May 18.

WARREN

Sixth Annual Postgraduate Seminar, Warren County AAGP, at K-C Columbia Building, city of Warren, April 30, 8: 30 A.M.–5 P.M.; 7 hours AAGP. Contact R. E. Bryan, M.D., 514 Third Avenue, West Warren 16365.

WILKES-BARRE

(These courses are held at Wilkes-Barre General Hospital, 9 A.M.–12 M., on dates indicated; each 3 hours AAGP.)

Management of Renal Failure, March 17.

Ovulation Control—Stimulation and Suppression,* April 21.

Trauma,* May 19, 8:30 A.M.–12 M. (Doctors' Day).

WILLIAMSPORT

(These courses are held at Williamsport Hospital, 10 A.M.–3:30 P.M., on dates indicated; fee, each course, $4.00; each 4 hours AAGP.)

Gastrointestinal Bleeding: Medical and Surgical Approach,* March 16.

Blood and Plasma Volume Expanders, April 20.

YORK

(These courses are held at York Hospital, 9:30 A.M.–12 M., on dates indicated; fee, each course, $6.00; each 3 hours AAGP.)

Physiology of Menstruation and Its Relation to Contraception and the Menopause,* March 10.

Neurological Manifestations of Malignant Disease,* March 17.

Rickettsial Disease in the United States,* March 24.

Iron Metabolism and Its Disorders,* March 31.

Consecutive Case Conference—Prostatectomy,* April 7.

Parkinsonism—Its Diagnosis and Management,* April 14.

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* These courses sponsored by Jefferson Medical College and The Pennsylvania State University. For further course information, contact J. H. Killough, M.D., 1025 Walnut Street, Philadelphia 19107.

† For all Einstein courses, contact L. J. Zimet, Albert Einstein Medical Center, Philadelphia 19141.

● **About This Section:** We publish this list monthly to alert PMS members to postgraduate education opportunities. To be publicized, courses must be one-half day (three hours) or more in length, designed for licensed doctors of medicine, and of interest to physicians in an area of several counties or more. Organizations offering courses meeting these qualifications may submit items for publication. Information must be received by the first day of each month, to appear the following month. Each item will appear no more than four times. Address: Commission on Medical Education, 230 State Street, Harrisburg 17105.

Neurology Institute

The ninth annual Institute on Neurology will take place April 1 at the Coatesville Veterans Administration Hospital, cosponsored by that institution and the Philadelphia Neurologic Society.

Kurt Wolff, M.D., the hospital's associate chief of staff, may be contacted for further information. Address: Veterans Administration Hospital, Coatesville 19320.

Surgeons' Group to Meet

Edwin F. Cave, M.D., Boston, and Col. John P. Staff, M.C., Washington, are among guest speakers for the thirteenth Annual Meeting of the Southwestern Pennsylvania Chapter of the American College of Surgeons April 6, in Pittsburgh.

Panel discussions will deal with emergency management of various trauma. A number of cooperating surgical specialty societies will have individual meetings in late afternoon.

Daniel S. DeStio, M.D., 121 South Highland Avenue, Pittsburgh 15206, is president of the Southwestern Pennsylvania Chapter.

Meetings

PENNSYLVANIA

MARCH

Board of Trustees and Councilors—Penn Harris Motor Inn, Harrisburg, March 16–17.

APRIL

Seventh Annual Institute on Perinatal Mortality and Morbidity—Holiday West Motor Hotel, Harrisburg, April 14.

Officers' Conference—Penn Harris Hotel, Harrisburg, April 28, 29.

OCTOBER

One Hundred Seventeenth Annual Session—Penn Sheraton Hotel, Pittsburgh, October 9–13.

REGIONAL

MARCH

College of Physicians of Philadelphia, and New York Academy of Medicine, joint meeting of otolaryngology sections—College of Physicians, Philadelphia, March 16.

"Pennsylvania Day" (Ophthalmology meeting)—Mt. Sinai Hospital, New York, March 16.

Spring Workshop, Pennsylvania Association of Blood Banks—Marriott Motor Hotel, Philadelphia, March 31–April 1.

MAY

Annual Meeting, Pennsylvania Society of Internal Medicine—Bedford Springs Hotel, Bedford, May 13–15.

Pennsylvania Academy of Ophthalmology and Otolaryngology—Bedford Springs Hotel, Bedford, May 18–22.

NATIONAL

APRIL

American College of Clinical Pharmacology and Chemotherapy—Sheraton Hotel, Philadelphia, April 29–30.

JUNE

American Medical Association Annual Convention—Chicago, June 26–30.

Saxon

If you can hang on for a few minutes, Doctor,
I'm sure I'll start coughing again.

Some patients don't realize there's more to a cough than meets the ear.

If it's the useless, exhausting type of cough that often accompanies respiratory infection or allergy, you can provide prompt relief with Novahistine DH. Its decongestant-antitussive action controls frequency and intensity of cough spasms without abolishing cough reflex. And the fresh, grape flavor of Novahistine DH appeals to children and adults alike.

When your diagnosis is bronchitis, complicated by thick tenacious exudates, Novahistine Expectorant is particularly useful. It not only provides decongestive action and controls the cough, but also encourages expectoration, thus easing bronchial constriction and obstruction.

Use with caution in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Ambulatory patients should be advised that drowsiness may result. Continuous dosage over an extended period is contraindicated since codeine phosphate may cause addiction.

Each 5 ml. teaspoonful of Novahistine DH contains codeine phosphate, 10 mg. (Warning: may be habit forming); phenylephrine hydrochloride, 10 mg.; chlorpheniramine maleate, 2 mg.; chloroform (approx.), 13.5 mg.; l-menthol, 1 mg. (Alcohol 5%). Each 5 ml. of Novahistine Expectorant contains the above ingredients and, in addition, glyceryl guaiacolate, 100 mg.

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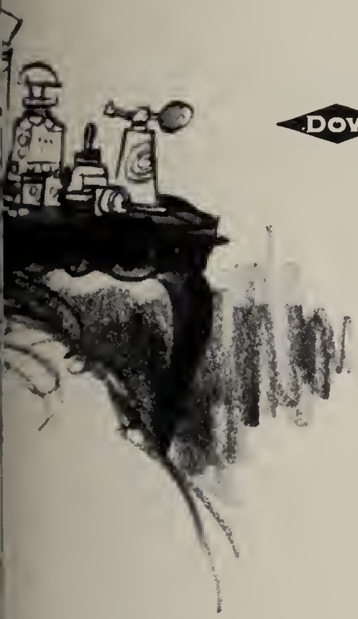
NOVAHISTINE® EXPECTORANT

DOW **PITMAN-MOORE** Division of The Dow Chemical Company, Indianapolis



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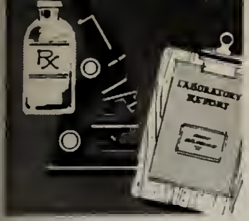

ORIGINAL PAPERS

Traumatic Aortic Rupture

A 7,000-pound pressure injury to a young man's chest causes traumatic aortal pseudocoarctation, necessitating intricate prosthetic surgery

DRS. WILLIAM M. LEMMON, THOMAS F. McGARRY,
CHARLES A. SYMS, AND RUHI HINDAWI
Philadelphia, Pennsylvania

Of the 15 percent of subjects who survive immediate traumatic rupture of the thoracic aorta, a few develop a syndrome somewhat similar to congenital coarctation of the aorta. In the past, the teaching has been that hypertension in the upper extremities, with hypotension in the lower extremities, is pathognomonic of congenital coarctation. Of the congenital lesions, 98 percent appear opposite the ligamentum arteriosum or the ductus arteriosus. Of traumatic ruptures of the aorta, 80 percent occur in the same location, the other 20 percent located in the ascending portion.[1]

In 1951, Rice first called attention to acute hypertension due to traumatic aortic rupture, followed by delayed hemorrhage and death.[2] He recognized the great importance of prompt, accurate diagnosis and of the possibility of surgical correction. A perusal of the literature reveals four successfully operated cases prior to this report.[3, 4, 5]

Case Report

A twenty-three-year-old male, at work on a stacking machine, reached inside and suddenly found himself caught. The apposing panels of the press closed upon him and squeezed his chest, to approximately 7,000 pounds pressure per square inch. He fell unconscious and awakened in a hospital, complaining of left chest pain; a roentgenogram showed fractures of left ribs 2 and 3, near the midaxillary line. The patient was placed at bed rest under observation, with mild analgesics administered for pain. Six days later he developed a systolic murmur which had not been present previously. Simultaneously, upper extremity hypertension was detected, with faint pulses and unobtainable blood pressure in the lower extremities. He was transferred to Hahnemann Medical College and Hospital for evaluation of his murmur. Some five weeks after the accident, physical examination disclosed blood pressure in the upper extremities of 180/60, with undetectable blood pressure in the legs. Normal sinus rhythm at 88 per minute was present. A grade III/VI late systolic murmur was heard best over the left sternal border and in the interscapular area of the back.

The patient suffered from daily headaches, and from occasional mild pain across the shoulder tops at the root of the posterior neck. These complaints responded to mild analgesics. Urine output was normal. No neurologic complaints were noted. Serum electrolytes and other laboratory studies, including electrocardiograms, were within normal limits. A roentgenogram of the chest indicated healing of the rib fractures with slight widening of the superior mediastinum (Fig. 1). An aortogram was performed via a cardiac catheter introduced through the right brachial artery. Pressures were recorded on the distal and proximal sides of the site of traumatic rupture. This determination indicated a gradient of 58 mm.Hg. across the site of involvement (Fig. 2). The cineaortogram revealed multiple areas of disruption of the aortic intima, with momentary delay of contrast material across the traumatized segment (Fig. 3), confirming the diagnosis of traumatic pseudocoarctation of the aorta.

A left thoracotomy was performed eight weeks after the initial injury. Beneath the pleura, dense scarification extended from the origin of the left common carotid to three inches below the left subclavian, involving the vagus and recurrent laryngeal nerves as well as the ligamentum arteriosum and pulmonary artery with their pericardial reflection (Fig. 4). The less difficult, less hazardous dissection was done first. Tapes were passed about the distal descending aorta and the left subclavian arteries. The pericardium was opened posterior to the left phrenic nerve and the edges marsupialized. The scar extended medially, slightly involving the phrenic nerve. Due to the unknown ramifications of the false aneurysm, dissection was now slow and tedious as it continued above the main pulmonary artery across very dense scar tissue beneath the transverse aortic arch. A tape was then passed around the aorta between the common carotid and the subclavian arteries.

Next the vagus nerve was dissected from the scar, as was its recurrent laryngeal branch. The patient was heparinized. Left atrial-left femoral artery cannulations were done and the patient was placed on partial heart-lung bypass. The isolated area of the lesion was excluded by clamps. The aorta was opened vertically at the site of involvement. The intima was noted to be fragmentated at a number of places, with the flaps torn in a transverse direction. Further observation indicated a fracture site of the posterior medial aortic wall just distal to the origin of the left subclavian artery,

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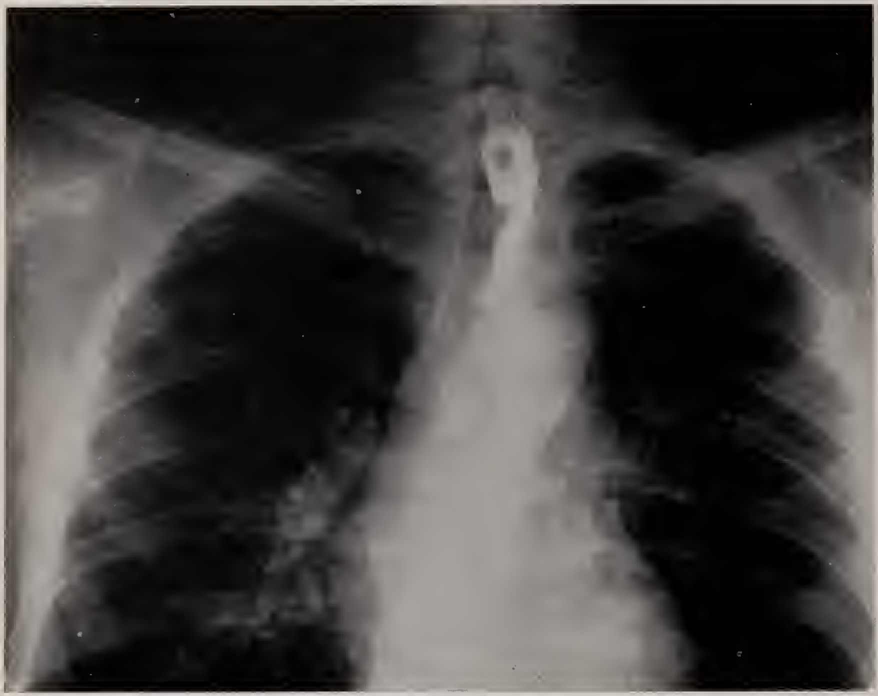

Fig. 1. Chest x-ray indicating minimal widening of the superior mediastinum, with fractures of left ribs 2 and 3.

with dissection extending to the level of the subclavian above, and for a total distance of about three inches below. The diseased aorta was resected, and replaced with a woven teflon graft (Fig. 5). The vascular clamps were removed as transfusion was accomplished from the heart-lung machine (Fig. 6).

Until the heparin antagonist took complete effect, there was considerable oozing from the dissected scar tissue which required several units of blood replacement. The blood pressure immediately returned to normal levels, with good pulses in the legs. The postoperative course was uncomplicated. The patient was recently seen for a twelve-months' postoperative evaluation follow-up visit; none of the preoperative findings of acquired coarctation were present.

Mechanism of Injury

The majority of aortic ruptures due to blunt trauma result from automobile or aircraft accidents in which sudden deceleration occurs.[6] In 1892, Rindfleisch [7] described fixation of the aortic arch with relative mobility of the descending thoracic aorta as the stage-setting for the shearing force producing aortic rupture. More recently, McKnight [8] has questioned this concept; we are inclined to accept his explanation of the mechanism. This hypothesis is opposite to that of Rindfleisch, and accepts fixation of the descending thoracic aorta with mobility of the transverse and ascending portion (Fig. 7). Sudden deceleration with relative forward motion of the unfixed portion results in rupture at the point of maximum stress. We have noted two other successfully repaired cases in which a crushing injury of the chest resulted in aortic rupture.[9, 10]

A complete transverse tear of the aorta often occurs, involving the intimal and medial layers, with the adventitia remaining intact. "The adventitia provides 60 percent of the strength of the aorta." [11] Experimental work by Kletz [12] and Oppenheim [13] indicates that an intraluminal pressure of 1,000-3,000 mm.Hg. is necessary to disrupt the aortic wall.

Clinical Manifestations

This patient apparently is the first one reported crushed in a stacking machine with resultant incomplete circumferential rupture of the aorta, leading to a syndrome of traumatic pseudocoarctation of the aorta. This illustrates that any patient sustaining major blunt trauma to the chest should be suspected of having a ruptured thoracic aorta. Physical findings in such cases may be significant or absent. The immediate x-ray of the chest may not reveal impressive widening of the superior mediastinum. The presence of rib fracture or fractures, and the history of trauma to the chest,

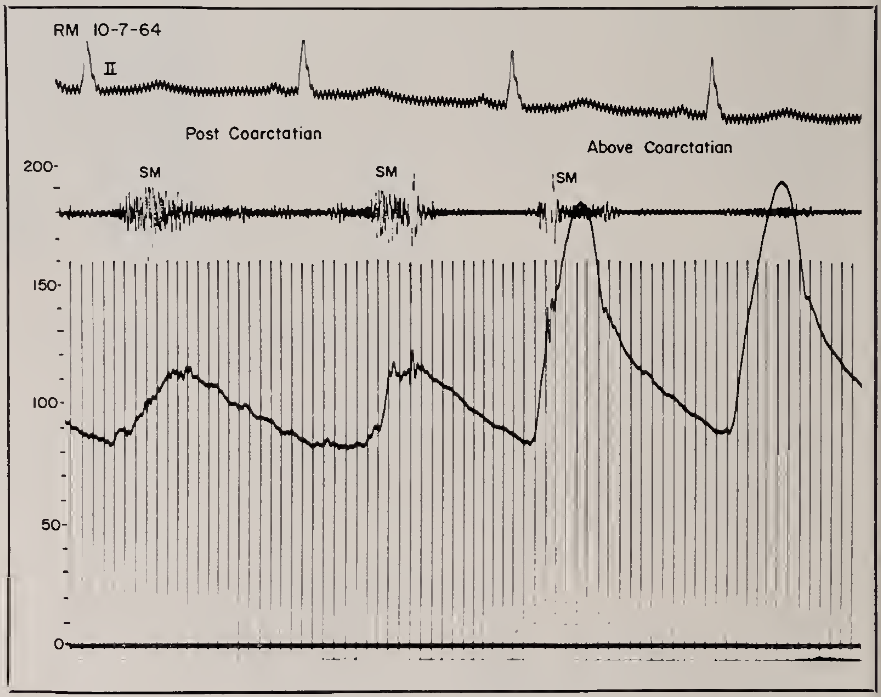

Fig. 2. Tracing indicating distal/central aortic pressure and the higher proximal aortic pressure, with a gradient of 58 mm.Hg. across the area of aortic injury.

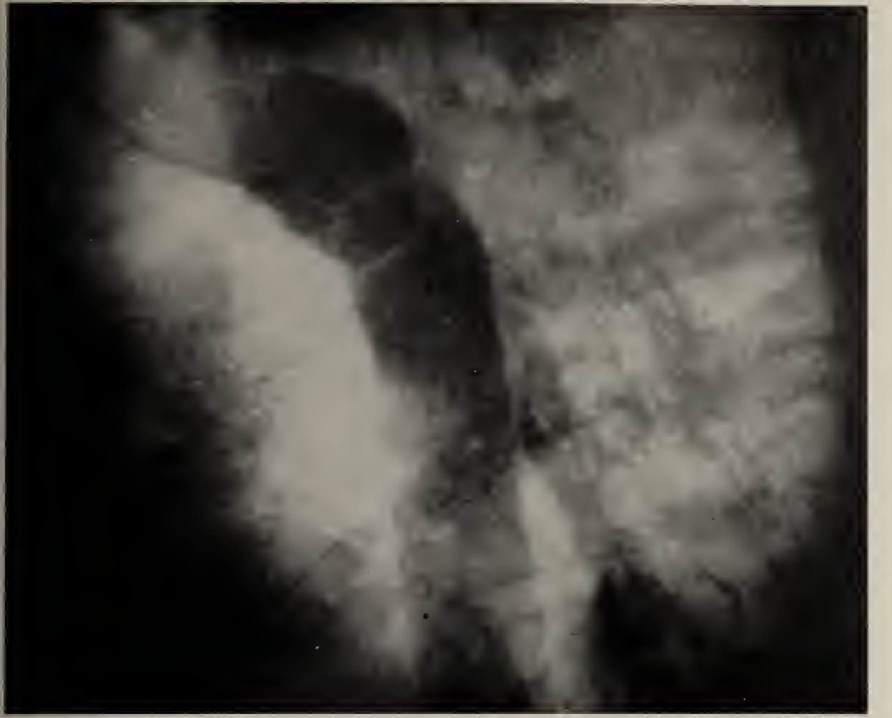

Fig. 3. Aortogram revealing transverse laceration of the aorta and intimal flaps therein.

are all the more indicative of observation over a period of weeks, by means of a series of chest x-rays. Development of a murmur, and of hypertension in the upper extremities—with a differential pressure in the lower extremities—indicates aortic block. Patients may also exhibit evidence of hemothorax, dysphagia, hoarseness, dyspnea, or unexplained chest pain. Emergency aortography is indicated when a patient has one or more of the above clinical findings.

Of the 15 percent who survive the immediate insult, at least 40 percent later die of sudden rupture of the aorta, usually unsuspected and undiagnosed. Most subjects with this type of injury are young adult males. Surgery has everything to offer, but conservative treatment has no place in the management of this lesion. No patient has been reported to have survived a secondary rupture.

Congenitally-Acquired Coarctation

Certain important differences exist between congenital coarctation and the acquired lesion. The former, while present from birth, may—and frequently does—produce a murmur, a significant differential blood pressure between the upper and lower extremities, and evidence of increased collateral circulation. The latter seldom causes a murmur, only occasionally produces significant elevation in the blood pressure, and is preceded by a history of major trauma to the chest.

The uncomplicated congenital lesion produces symptoms at a much earlier age but does not produce widening of the superior mediastinum, or dysphagia, hoarseness, or hemothorax. Congestive heart failure occurs in the congenital variety in infants, and has been reported with the acquired type. The electrocardiogram in the congenital lesion may produce left ventricular hypertrophy. Two weeks of sustained hypertension is enough to alter a normal electrocardiogram to such a finding. Chest x-rays of the congenital lesion may show notching of the ribs[14] in a high percentage of cases; no notching has been noted after traumatic coarctation. The obstruction of the congenital type is due to narrowing of aortic tissue, with orifices varied in size. The traumatic type has been found to be due to hematoma formation. In addition, scarring has been noted to contribute to acquired aortic block. This is the first instance where the disruptured intima has acted as a flap valve within the stream of blood-flow, to produce some degree of aortic block.

The aortogram in the congenital variety usually demonstrates highly developed, markedly vascular collateral circulation around the lesion. Such vascularity has not been noted in reported aortograms of acquired pseudocoarctation. Frequently, the aortogram in the latter type delineates an area of separation of the ends, or rupture of the aortic wall. The literature reveals no case in which a gradient was determined across the site of rupture by cardiac catheterization techniques.

Surgical Considerations

Surgical excision and anastomosis for congenital coarctation of the aorta are well established. Use of a bypass shunt with or without a pump or heart-lung machine has rarely been advocated for the congenital lesion. Cases of paraplegia due to spinal cord damage have been noted after correction of congenital coarctation. Paraplegia has occurred with acquired traumatic aortic rupture due to hematoma formation and lack of blood-flow to the lower spinal cord.[15] With develop-

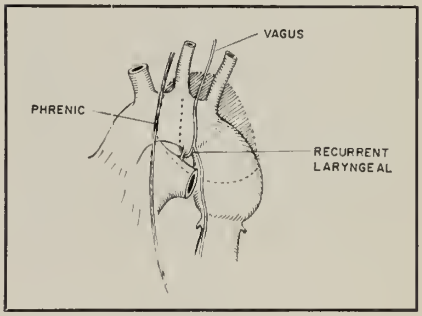

Fig. 4. Diagram of operative findings, showing involvement of vagus and recurrent laryngeal nerves.

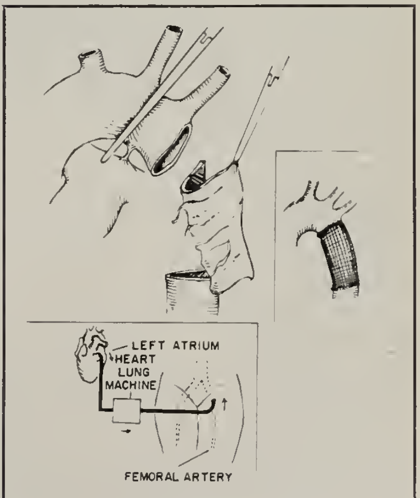

Fig. 5. Postoperative status, with teflon prosthetic graft in place.

ment of collateral circulation lacking in the acquired cases, it has been demonstrated that some type of bypass shunt from proximal to distal to the resection is essential to a routine successful result.

In the first such lesion explored (before the era of open-heart surgery), the surgeon was confined to wrapping the false aneurysm with cellophane[16]

One case has been reported in which direct suture was successfully applied to an incomplete rupture.[17] Bahnson reported successful excision of a traumatic aneurysm with repair by aneurysmorrhaphy.[18] In later operations, the lesions were resected and a homograft inserted, but the incidence of paraplegia was high.[19] This established the need for a bypass around the segment of clamped aorta. Resection with hypotension was tried, but proved to be an unreliable technique. Resection and prosthetic grafting, with hypothermia, was next.[9] Still the period of aortic clamping was limited, and led to the use of a temporary prosthetic shunt from the left subclavian to the descending thoracic aorta.[6] This considerably lengthened an already difficult operative procedure and did not gain wide favor, but the technique is still useful where heart-lung equipment and personnel are not available. The use of a left atrial cannulation with a heart-lung machine, and return to the femoral artery, is a safe, reliable technique,[20, 21] and remains the treatment of choice.

Any patient sustaining major thoracic nonpenetrating trauma should be suspected of having a traumatic rupture of the aorta. Such patients must be observed over a period of weeks, with repeat roentgenograms. The single most significant finding is widening of the superior mediastinum, seen in chest x-ray. Where this is noted, an aortogram should be done immediately; when the diagnosis is established, surgery should be performed promptly. In cases where the lesion is apparently stable, one may consider waiting six-eight weeks before performing the definitive operation; by then, the scar is less vascular, and the technical difficulties of the operation are reduced.

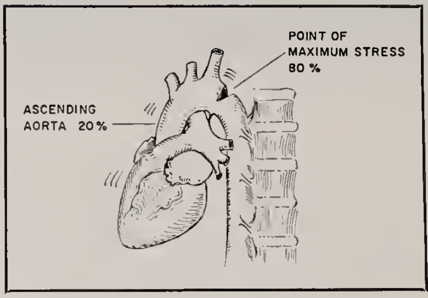

Fig. 7. Diagram illustrating sites of injury to the aorta, and deceleration mechanism for the injury.

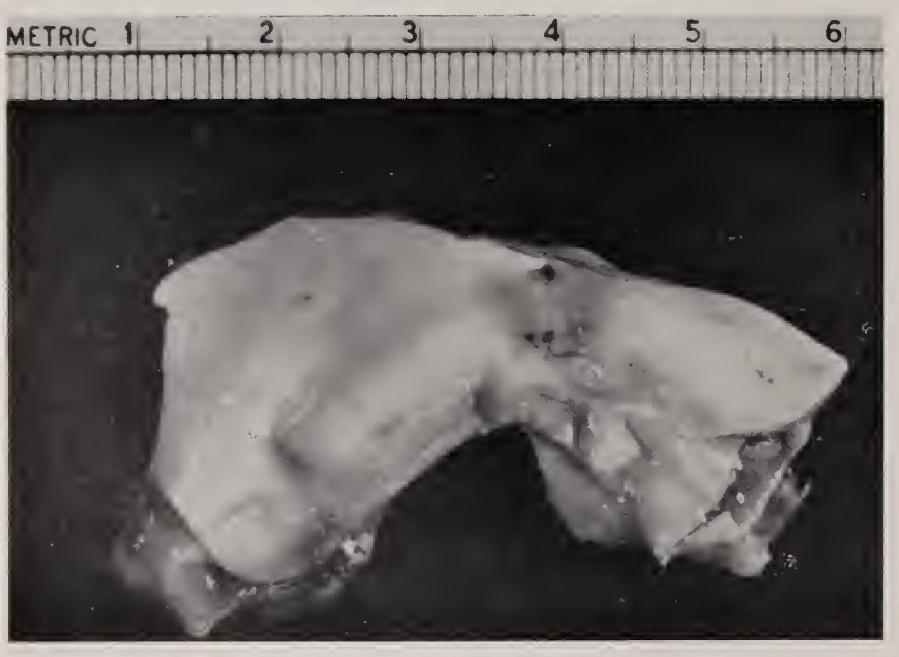

Fig. 6. Operative specimen.

Historical evolution of surgical techniques for ruptured thoracic aorta:

1. Polyethylene wrapping
2. Patch graft
3. Excision—aneurysmorrhaphy
4. Resection—homograft
5. Resection—graft—induced hypotension
6. Resection—prosthetic graft—hypothermia
7. Temporary by-pass shunt, excision graft
8. Left atrial-femoral artery, partial heart-lung bypass —excision—prosthetic graft replacement

Summary

We have presented a case of traumatic rupture of the thoracic aorta due to a crushing injury of the chest. The patient developed a syndrome of pseudocoarctation of the aorta. We have pointed out certain differences between congenital coarctation and the acquired lesion, as indicated in the history, clinical findings, roentgenograms, and surgical treatment of each particular case.

Acknowledgements

Our thanks to J. Stauffer Lehman, M.D., professor of radiology, for use of the aortogram and the chest x-rays; to Albert J. Kaspar, M.D., for the cardiac catheterization and aortogram performed in this case; and to Joseph E. Imbriglia, M.D., professor of pathology, for the photograph of the operative specimen. These physicians are all associated with the Hahnemann Medical College and Hospital.

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Antimicrobial Agents and Their Adverse Effects

Compiled by The Medical Letter, *Using Published Reports and Judgment of Consultants*

All antimicrobial agents are capable of causing allergic or toxic reactions, and probably all can cause superinfections. As with most drugs, adverse effects are related to such factors as dosage, the state of kidney and liver function, and the age of the patient. There are special hazards with the premature infant and the neonate, whose detoxification mechanisms are not fully developed. In the elderly, reduced functional capacity of the kidneys may increase the toxic and other adverse effects of drugs excreted by the kidneys.

ALLERGIC REACTIONS — The penicillins and the sulfonamides are the antimicrobial agents most likely to cause allergic reactions. Anaphylactic shock, and possibly delayed allergic reactions such as drug fever, asthma, urticaria, and serum sickness, occur more frequently with parenteral than with oral administration. The cholestatic jaundice sometimes caused by triacetyloleandomycin and erythromycin estolate (Ilosone) may be a manifestation of drug sensitivity rather than a toxic reaction.

GASTROINTESTINAL SIDE EFFECTS—Gastrointestinal disturbances are quite common following antimicrobial therapy; they are usually dose-related, and may occur with any antimicrobial agent administered orally or, occasionally, parenterally. Nausea, dyspepsia, and diarrhea may be due to primary irritation of the gut by the antimicrobial drug, or to superinfection by resistant staphylococci, fungi (especially Candida albicans), or other organisms. Superinfections in the alimentary tract and in other organs may occur during oral or parenteral treatment with many antibiotics, but they are especially frequent with oral administration of broad-spectrum drugs such as the tetracyclines. Anal itching is a frequent side effect of orally administered antibiotics, and has been attributed to superinfection by fungi; oral or topical administration of a fungistatic agent such as nystatin or amphotericin B is sometimes effective in relieving the symptom. A rare adverse effect of antimicrobial therapy is an intestinal malabsorption syndrome, occurring chiefly with neomycin and kanamycin.

ANTIMICROBIALS IN RENAL INSUFFICIENCY—Most antimicrobial agents and their metabolites are excreted mainly in the urine. A few (erythromycin, novobiocin, and triacetyloleandomycin) are excreted largely by way of the biliary tract. The usual doses of most antibiotics can be given with reasonable safety to most patients during the first 24 hours of therapy, but in patients with renal insufficiency, subsequent doses should be reduced to avoid the risks of toxic drug concentrations in blood and tissues. Even the initial doses of antimicrobials with high renal or auditory-nerve toxicity—such as streptomycin, kanamycin, neomycin, polymyxin B and polymyxin E (colistimethate)—should be reduced in patients who have impairment of renal function. Maintenance doses of all agents should be reduced if the patient is dehydrated or if renal function is impaired. Where laboratory facilities are available, chemical analysis of antibiotic blood levels, or bioassay of serum antimicrobial potency, is helpful in defining dosage requirements and in minimizing toxicity.

USE IN PREGNANT WOMEN AND IN THE NEWBORN—The sulfonamides, chloramphenicol, the tetracyclines, streptomycin, novobiocin, erythromycin, and nitrofurantoin have been suspected of causing injury to the fetus or the newborn when administered during pregnancy or lactation. Though the evidence is questionable, all antimicrobial agents should be administered cautiously to pregnant women, nursing mothers, and premature and newborn infants. There is no convincing evidence that administration of any antimicrobial drug to pregnant women has had teratogenic effects. Chloramphenicol and the sulfonamides are metabolized and detoxified with the aid of liver enzymes which may not be active in newborn infants; if possible, their use in the newborn should be avoided.

A PARTIAL LIST OF BRAND NAMES

Amphotericin B: Fungizone—Squibb

Cephalothin: Keflin—Lilly

Chloramphenicol: Chloromycetin—Parke, Davis

Colistimethate: Coly-Mycin—Warner, Chilcott

Cycloserine: Seromycin—Lilly

Demethylchlortetracycline: Declomycin—Lederle

Erythromycin: Erythrocin—Abbott; Ilosone—Lilly; Ilotycin—Lilly

Griseofulvin: Grisactin—Ayerst; Grifulvin—McNeil; Fulvicin—Schering

Kanamycin: Kantrex—Bristol

Lincomycin: Lincocin—Upjohn

Methenamine mandelate: Mandelamine—Warner, Chilcott

Nalidixic acid: NegGram—Winthrop

Nitrofurantoin: Furadantin—Eaton

Novobiocin: Cathomycin—Merck; Albamycin—Upjohn

Nystatin: Mycostatin—Squibb

Paromomycin: Humatin—Parke, Davis

Polymyxin B: Aerosporin—Burroughs Wellcome

Sulfamethoxypyridazine: Kynex—Lederle; Midicel—Parke, Davis

Triacetyloleandomycin: TAO—Roerig; Cyclamycin—Wyeth

Vancomycin: Vancocin—Lilly

Principal Adverse Effects of the Common Antimicrobial Agents

With many drugs, it has been difficult to estimate the frequency of adverse effects, on the basis of published reports. The frequencies indicated are based on the judgment of *Medical Letter* consultants as well as on published reports; doubtless, continuing experience will dictate changes in the estimates of frequency. In general, toxic and other adverse effects are more severe with parenteral than with oral administration. Gastrointestinal disturbances are much more frequent with oral than parenteral administration, and may occur with any antimicrobial agent; they are omitted in the table when they appear to occur only rarely.

p-AMINOSALICYLIC ACID

Frequent: GI disturbances, allergic reactions, often with fever
Occasional: blood dyscrasias
Rare: severe liver damage

AMPHOTERICIN B

Frequent: renal damage, anemia
Occasional: fever, hypotension, liver damage, blood dyscrasias

BACITRACIN

Frequent: renal damage (P)
Occasional: blood dyscrasias (P)

CEPHALOTHIN

Frequent: allergic reactions; pain at site of injection
Rare: neutropenia (possibly allergic)

CHLORAMPHENICOL

Occasional: blood dyscrasias, usually severe and sometimes fatal
Rare: allergic reactions, peripheral neuropathy, optic atrophy
(Chloramphenicol is detoxified by the liver; use it with extreme caution in newborn and in patients with liver disease.)

COLISTIMETHATE (POLYMYXIN E), see POLYMYXIN B

CYCLOSERINE

Frequent: confusion, drowsiness, coma
Occasional: peripheral neuropathy
Rare: seizures, psychoses

ERYTHROMYCIN

Occasional: GI disturbances
(Erythromycin estolate may occasionally cause cholestatic jaundice, possibly allergic.)

***ETHIONAMIDE**

Occasional: GI disturbances, liver damage, peripheral neuropathy, allergic reactions

GRISEOFULVIN

Occasional: GI disturbances
Rare: allergic and photosensitivity reactions, renal damage, blood dyscrasias, lupus-like syndrome

ISONICOTINIC ACID HYDRAZIDE

Occasional: peripheral neuropathy
Rare: allergic reactions, liver damage, blood dyscrasias, psychosis

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(P) Adverse effects which occur only with parenteral administration, both not with oral or topical use of the drug.

* New agent; experience is insufficient for adequate evaluation of the frequency, severity, or range of side effects.

KANAMYCIN and NEOMYCIN

Frequent: auditory-nerve damage (P)
Occasional: renal damage, usually reversible (P)
Rare: peripheral neuropathy (P), blood dyscrasias (P), intestinal malabsorption, allergic reactions
(Intraperitoneal administration may cause respiratory depression and arrest; topical application occasionally causes contact dermatitis and conjunctivitis.)

*LINCOMYCIN

Frequent: diarrhea on oral administration

METHENAMINE MANDELATE

Rare: allergic reactions, crystalluria with renal damage

*NALIDIXIC ACID

Occasional: GI disturbances
Rare: photosensitivity reactions, seizures

NEOMYCIN, see KANAMYCIN

NITROFURANTOIN

Occasional: allergic reactions, GI disturbances
Rare: liver damage, blood dyscrasias, peripheral neuropathy (sometimes severe)

NOVOBIOCIN

Frequent: liver damage, allergic reactions, GI disturbances
Occasional: blood dyscrasias

NYSTATIN

Occasional: allergic reactions, GI disturbances

PAROMOMYCIN (not available for parenteral use in the United States)

Occasional: auditory-nerve damage (P)
Rare: liver damage (P), allergic reactions

PENICILLINS

Frequent: allergic reactions
Rare: leukopenia with methicillin
(The potassium in large doses of potassium penicillins can be neurotoxic; intrathecal penicillin may injure neural tissue.)

POLYMYXINS B and E

Frequent: renal damage, peripheral neuropathy (P)
Rare: allergic reactions

PYRAZINAMIDE

Occasional: severe liver damage

RISTOCETIN (no longer sold in the United States)

Frequent: renal damage, blood dyscrasias
Rare: auditory-nerve damage, allergic reactions

STREPTOMYCIN

Frequent: vestibular nerve damage, sometimes permanent (dihydrostreptomycin causes severe, irreversible auditory-nerve damage)
Occasional: contact sensitivity and other allergic reactions
Rare: peripheral neuropathy, blood dyscrasias, respiratory arrest

SULFONAMIDES

Frequent: allergic reactions
Occasional: renal injury, liver damage, blood dyscrasias, photosensitivity reactions
(Serious reactions such as Stevens-Johnson syndome and blood dyscrasias are most likely to occur with long-acting sulfonamides, especially sulfamethoxypyridazine.)

TETRACYCLINES

Frequent: GI disturbances, photosensitivity reactions (with demethylchlortetracycline; rare with other tetracyclines)
Rare: allergic reactions, blood dyscrasias, visual disturbances, renal disease, interference with protein metabolism, increased intracranial pressure in infants
(May cause bone lesions and staining and deformity of teeth in children, and in the newborn when given to pregnant women. Deteriorated tetracycline in certain formulations has caused impairment of renal tubular function. Parenteral doses in excess of 1 gm. daily may cause fatal liver damage, especially in pregnant women and patients with renal disease.)

TRIACETYLOLEANDOMYCIN

Occasional: GI disturbances, allergic reactions, cholestatic jaundice (possibly allergic)

VANCOMYCIN

Frequent: auditory-nerve damage, thrombosis at injection site
Occasional: renal damage, usually reversible
Rare: allergic reactions, peripheral neuropathy

VIOMYCIN

Frequent: auditory-nerve damage
Rare: renal damage

Chemoprophylaxis in Emphysema

To extend earlier observations on the bacterial flora of sputum of patients with chronic bronchitis and emphysema, and to assess *Hemophilus influenzae*'s role in attendant acute episodes, a study was conducted at Bellevue Hospital Chest Clinic. All forty patients selected from the emphysema section had clinical and physiologic evidence of chronic bronchial obstruction and emphysema. Most of the thirty-seven males were too incapacitated by breathlessness or cough to maintain jobs; activities of the three females were limited to housework.

On the basis of sputum examinations over a period of weeks, patients were grouped according to the presence or absence of *H. influenzae* in the sputum, and according to whether or not they had previously had prophylactic therapy.

Twenty-one patients were placed on chloramphenicol, nineteen on placebo. During the four-to-fourteen-months' treatment period, all patients submitted weekly sputum specimens, were interviewed briefly, and received their weekly supplies of medicine. During this time, the nineteen on placebo had forty-one infections, the twenty-one on chloramphenicol, thirty-one; an immediate, persistent change in flora occurred in five patients, *H. influenzae* disappearing from the sputum of three in whom it had originally been observed, and in two in whom it had consistently been present before treatment. In one of the latter, pneumococci (sporadically present the previous year), were subsequently isolated from almost every specimen during treatment with chloramphenicol—yet remained susceptible to the drug.

H. influenzae was seen significantly less often in the sputum of the chloramphenicol-treated patients than in that of the placebo patients. The frequency of isolation of this microorganism, and of pneumococci, followed no seasonal pattern; both were found more often in purulent than in nonpurulent sputum. The incidence of pneumococci increased both in the placebo group and in that receiving chloramphenicol.

Staphylococcus aureus was isolated slightly more often in the treatment period than beforehand, the incidence being higher in patients hospitalized sometime during the study than in those not hospitalized.

Gram-negative enteric rods appeared about as often in one group as in the other during treatment. Beta hemolytic streptococci were isolated from about 5 percent of cultures from placebo patients and chloramphenicol patients alike.

Although patients receiving chloramphenicol showed slightly worse pulmonary function during therapy, the differences in lung volumes, maximal breathing capacity measurements, and arterial blood gases before and during treatment were not considered significant.

Studies Compared

Results of the daily, long-term prophylactic regimen with chloramphenicol in general confirm findings of a similar previous trial with tetracycline. Although the chloramphenicol apparently reduced the number of infections, subjective improvement was negligible, and was less frequent than that with tetracycline. While incidence of *H. influenzae* in the sputum of those receiving chloramphenicol was slightly greater than that obtained with the intermittent tetracycline regimen, the former showed significantly less reduction of pneumococci than did the latter.

H. influenzae's role in chronic bronchitis and emphysema remains controversial. That it may be an etiologic factor in these patients' acute exacerbations was suggested by the fact that although it was present in only 11 percent of sputum cultures from patients receiving chloramphenicol, it was present as "persistent" flora in almost 23 percent of the infections in this group. Among these patients, those with exacerbations showed twice as high an incidence of *H. influenzae* as did those without acute infections during the year. This relationship was not found among patients receiving placebo.

Prophylactic chloramphenicol may alter the sputum flora so that, in acute exacerbations, *H. influenzae* somehow becomes more prominent than it is in patients whose flora has not thus been altered; or perhaps the failure to eliminate *H. influenzae,* with chloramphenicol, identifies patients more likely to have recurrent infection.

Since among patients on placebo the infection rate in those who had pneumococci sometime during the study was higher than in those who had never had this microorganism isolated from their sputum, pneumococcus may be important in the exacerbations of chronic bronchitis and emphysema. Furthermore, most patients with acute infections had pneumococci sometime during the study, whereas only a third who had never had infections evidenced the microorganism.

In most patients, long-term chemoprophylaxis is probably not justified. Continued indefinitely, it is expensive. If it is discontinued after six months, half of the patients revert to pretreatment status. In addition, evidence is accumulating which suggests that most acute exacerbations are of nonbacterial etiology.

• DRS. ANNE L. DAVIS, EVELYN J. GROBOW, RALPH TOMSETT, and JOHN H. MCCLEMENT, and THERESA KAMINSKI, B.A.: *The American Review of Respiratory Diseases,* December, 1965.

The human spine is not engineered fo prolonged sitting at desks, pianos, typewriters and drafting boards. The stresse set up by the heavy, forward-tilted hea and trunk, balanced precariously on a insufficient base, result in strain of th dorsal musculature, particularly at th low lumbar level.

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The Asthmatic Child

Management of emotional and physical problems in pediatric asthma require the utmost understanding and skill on the part of the allergist

HOWARD G. RAPAPORT, M.D.
New York, New York

Bronchial asthma is the most severe, the most crippling, and the most blatantly life-threatening of the common allergic illnesses. Characterized distinctively but not exclusively by repeated episodes of wheezing, it is essentially a *chronic* disease marked by *acute* episodes of varying severity, duration, and frequency. To the allergist, any condition that involves wheezing *is* asthma. We are aware, of course that factors such as congenital abnormalities of the larynx or the thymus gland, or a foreign body in the respiratory tract, may precipitate wheezing. Usually, however, by the time the child reaches the allergist he has been examined thoroughly, and nonimmunologic causes of wheezing have been ruled out.

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Types of Patients

Among the varying types of asthmatic children whom the allergist sees are:

1. The child with recurrent wheezing who has not been diagnosed as asthmatic, including the young child who has had several episodes of wheezing—with or without febrile or afebrile infection. The diagnosis has usually been "asthmatic bronchitis"—as though these children's sibilant and sonorous rales were different from those of an asthmatic child in the midst of an acute episode.
2. The child who has been diagnosed as having bronchial asthma, but who has received *no* treatment, or merely palliative treatment. Asthma is a progressive condition; in most cases, such children get worse.
3. The child who has had severe intermittent bouts of wheezing, but for whom a program of investigation and treatment has failed.
4. The child who continues to wheeze almost continuously, despite an excellent program of management by a competent physician.
5. The child who has been diagnosed as a bronchial asthmatic, but whose parents refuse to accept the diagnosis, and seek out an allergist—in the hope that he will invalidate it.
6. Finally, the child who has had repeated bouts of a harsh, staccato, chain-type nonproductive cough for prolonged periods of time, without evidence of infection. Levin[1] refers to this condition as "chronic tracheitis." I prefer to call it "chronic tracheobronchitis (preasthmatic)," since in my experience, these children often go on to develop recurrent wheezing—i.e., bronchial asthma.

Allergist's Role

The basic difference in the competent allergist's approach and that of the non-allergy-oriented physician or pediatrician is that the allergist's training and experience have prepared him to deal with bronchial asthma for what it is—a chronic, progressive condition. The pediatrician, whose professional background orients him to deal with acute illness—specifically infection—concentrates on rapidly ameliorating the symptoms. This course is often effective, but it leaves unresolved the deeper and more important problem of chronic illness—which, in most cases, will sooner or later have to be faced. The allergist, while interested in promptly relieving discomfort, is also concerned with the immunologic goal of building a maximum wall of protection against the often inexorable progression of the disease.

Steps in Therapy

The allergist must first establish effective overall control of the situation. In many instances, the patient and his family have had a series of frustrating, exhausting encounters with many physicians and have tried a bewildering variety of suggested remedies—to little or no avail. Some doubt as to the effectiveness of modern medical science may have crept into the picture. Although the allergist does not attempt to play God, he should reflect an air of confidence and control. Asthma is not uncontrollable, exotic, nor mysterious. The disease can be checked and the child helped; he and his family should be made aware of this.

I have found that a period of four to five weeks—during which I see the patient eight to ten times—is necessary in order that I may study him and build a sound foundation for his future treatment. Most important among a number of things to be done during this period are: the recording of the patient's history, and the completion of diagnostic tests, physical examinations, and laboratory studies.

History

The history is vitally relevant to a proper diagnostic survey in allergy, some physicians considering it the *only* important prerequisite to treatment. To whatever extent one can carry it, the history does provide an overall picture of the problem's size and nature. It can provide necessary etiologic clues, and can trace the progress and fluctuations of the illness from its inception. Although a reliable history often permits one to make an accurate *presumptive* diagnosis, usually it is not sufficient to stand alone as the basis of treatment.

Skin Tests

Skin tests, the most widely used and usually the most revealing of available diagnostic tests, can be performed on children of any age—from infancy on—and can help determine sensitivity to foods as well as to inhalant allergens. Skin test results must be viewed along with the child's history, since a positive skin test may also indicate past or potential sensitivity and thus, considered alone, may not be causally related to the situation as it now stands. It should also be noted that the size of the reaction in a positive skin test does not indicate *degree* of sensitivity to that particular allergen—nor can one accurately predicate treatment on the basis of the patient's reactions to different concentrations of antigens.

Scratch tests are the simplest tests available, even when given to a one-day-old infant. Hundreds of purified powdered antigens are available, but obviously not all need be used in every child; the choice usually depends on geographical or seasonal clues elicited in the history. Scratch tests are not infallible, however, and must be followed up with ophthalmic tests for pollens, or intradermal tests of suspected antigens which have failed to give a positive scratch test. The ophthalmic test, which involves dropping a small amount of dry pollen powder into the conjunctival sac of one eye, may reveal mucous-membrane sensitivity, thus serving as a more delicate indicator of sensitization than the scratch test.

In the intradermal test, one should not limit the concentrations of antigens to those used in the scratch tests. Intradermal antigen solutions may be used in concentrations as strong as 10,000 PNU without fear of constitutional reactions—as long as the specific antigens used have given negative reactions in scratch tests administered within the previous month.

In some instances, patch tests may also be used to determine contact sensitivity. Prausnitz and Kustner's passive transfer test is no longer recommended, not only because it carries the risk of infectious hepatitis, but also because it cannot be relied upon to give correct results more than 50 percent of the time.

Two other diagnostic techniques, available for use when foods are thought to be etiologically involved, are: the provocative test (in which the child is fed large amounts of the suspected food over a period of several days, in the hope of eliciting a response), and the elimination diet (in which the suspected food and all its by-products are removed from the diet, in the hope of relieving active symptomatology).

Physical Examinations

Physical examination of the asthmatic child can reveal the extent of the disease process and indicate the nature and degree of any structural changes that may have occurred. If the child is seen when symptoms are active, or if the illness is of long standing, the physician can, solely on the basis of the physical examination, establish or confirm the diagnosis of bronchial asthma. The classic bilateral sibilant and sonorous rales at the bases of the lungs are difficult to miss, and sometimes nasal mucous membrane and turbinates also reveal the effects of longstanding respiratory difficulty.

Laboratory Studies

In the asthmatic child, laboratory studies are valuable only in corroborating or confirming other data. Those useful in selected cases are: pulmonary function studies, chest and sinus x-ray examinations, and peripheral blood-smear analyses.

As Care Progresses

During the four- or five-week period of diagnostic study, it is also important to check on the patient's ongoing history. "How do you feel today?" or "How has Johnnie been doing this week?" are important questions, primarily because they provide direct, immediate entry into the dynamic situation. The answers sometimes contrast vividly with the prepared story which the cooperative parents brought to the initial interview. Such questions also help reassure parents and patient, by serving to express the physician's continuing personal interest.

Synthesis of Facts

A complete, accurate, written record of everything developed during the study period is the basis for planning a program of total management. History, results of diagnostic tests, findings of physical examinations and laboratory work-ups, and occurrence or relief of illness or symptoms since the first meeting must all be assembled, sifted, and matched, until a clear pattern of disease emerges. Then, at an extended meeting with parents and patient, all factors should be discussed as frankly and as thoroughly as possible, with questions encouraged. The allergist must convince the parents that their child's illness has been properly evaluated, and that a program of management will achieve specific therapeutic goals. The estimated duration and cost of treatment should also be discussed.

Hyposensitization

Chronic illness demands persistent treatment. For the child with bronchial asthma, the core of treatment is specific hyposensitization, probably over several years—the only immunologically sound means of treating asthma or any other allergy. It is the only technique aimed specifically at achieving control over triggering or inciting factors which are directly responsible for the active symptoms. We have yet to discover a "miracle drug" for asthma, but specific hyposensitization usually can yield good or excellent results. Most asthmatic children can lead a virtually normal life and, if treated early enough, can escape the crippling effects formally typical of chronic cases.

Hyposensitization is, however, a long-term procedure. Physicians who expect to see significant therapeutic progress within a few weeks or months will be severely disappointed. Unfortunately, this disappointment has often occasioned unjustified pessimism, not only among pediatricians and general practitioners, but also in the general population. One must recognize—and must be certain that the patient and his family recognize—that progress in controlling asthma is measured by years, not by days or weeks. Palliative medications can be expected to keep the patient comfortable and symptom-free in the meantime.

Hyposensitization stimulates formation of specific antibodies, thus increasing the patient's ability to tolerate or "handle" the offending substances. The classic form—in use since 1910—uses aqueous concentrations of specific antigenic extracts, with a generally excellent record of safety and a good record of clinical effectiveness. Perhaps its only drawback is the length of time required to achieve the desired state of relative immunity.

Since the early 1920's, a number of investigators have attempted to modify treatment and shorten the time required. Two techniques of hyposensitization are now receiving publicity in the medical and lay press:

1. The so-called "one-shot" repository treatment using emulsions of antigenic pollens in mineral oil, depending on gradual absorption of the antigen from the mineral oil at the repository site as a substitute for periodic injections of the more-promptly-absorbed aqueous antigen. Results have been fair, but the increased risk of anaphylactoid reactions following sudden release of large quantities of antigen is significant. The Food and Drug Administration has refused to certify these formulations for commercial use —apparently due to lack of adequate data concerning the ultimate fate, in the body, of the mineral oil vehicle. The "one-shot" treatment has evidently passed its peak of interest, and is now less frequently used than it was a few years ago.

2. The use of pyridine-extracted, alum-precipitated antigens—again in an attempt to slow down antigen absorption, thus simplifying and shortening treatment. Early reports on this technique reflected more enthusiasm than now appears to have been warranted. A number of investigators have discontinued using these substances, presumably because results were inadequate, or because severe untoward reactions too often occurred. The problems associated with alum-precipitated pyridines apparently relate primarily to their uncontrolled rate of breakdown in the body. If this leads to extremely slow absorption, sufficient protection obviously will not be provided. On the other hand, uncontrolled release of large quantities of active material can be dangerous, particularly in the very sensitive patient.

Another question was recently raised concerning these substances: "Are entirely new chemical combinations, formed in the manufacturing process, actually being injected in place of the natural antigens?" This would obviously provide a minimum of immunologic protection against specific environmental antigens.

It is unfortunate that this recent attempt to improve on the aqueous technique of hyposensitization has not borne fruit. But as progress is made in exploring the immunologic process, we can be sure that further efforts will be made toward devising more effective methods of treatment.

Prophylactic Hyposensitization

Many young children whose allergies are related to one particular seasonal pollen, subsequently develop active symptoms during other pollen seasons. These children usually can be identified on the basis of positive skin tests, before the new symptoms have appeared. Prophylactic hyposensitization of such children, done empirically, has been demonstrably valuable in minimizing or averting the onset of new illness in previously-innocuous seasons. Recent evidence indicates, however, that we are dealing not simply with the progressive inability of a shock organ to handle antigenic assault, but rather, with "expanding sensitization." One immunologist, reviewing evidence that seems to reveal an analogous situation in the guinea pig, has said that "sensitization to one antigen seems to lower the threshold sufficiently . . . to render subsequent sensitizations easier." [2] If "expanding sensitization" is an accurate description of what occurs, prophylactic hyposensitization should be considered of wide immunologic significance, and its increased use promoted.

The launching of a program of hyposensitization is by no means the end of the problem. The road leading to discharging the asthmatic child is not straight, smooth, nor always clearly marked. But the competent allergist, with a variety of tools at his disposal, usually can guide his patient to a successful result.

Minimal Restrictions

The asthmatic child should have as nearly normal a childhood as his condition permits, with encouragement to engage in his usual activities—even if symptoms are likely to be precipitated. He and his parents should remain aware, however, of the price that may be exacted. Although isolation from companions is undesirable, obviously some activities must be forbidden to some asthmatic children. Each case must be judged individually, and decisions must be based on the child's proven ability or disability in specific circumstances.

Dietary and environmental restrictions should be limited to those considered immunologically significant. Not only causally-related foods, but also highly sensitizing ones such as shellfish and spices, should routinely be eliminated from the diet; in most cases, they will return—surreptitiously or openly—as soon as the patient begins to do well.

Concentrate on the child's bedroom: pillows and mattresses should be of synthetic materials (or should be encased in such materials); blankets and rugs should be kept clean, books and other dust-gathering objects should be removed or kept in covered cases, and pungent odors such as those of camphor, airplane glue, and foods should be avoided.

In regard to pets, the often unbreakable emotional relationship between a child and his pet poses a special problem. Even if the child has tested negative to dog hair or dander, contact with the animal may contribute significantly to the allergic burden, further impeding therapeutic progress. Although the physician cannot always control such a situation, he should work toward a rational compromise between immunologic need and emotional support.

Palliatives

Palliative medications have in recent years become increasingly significant in treating asthma; the allergist must be aware of benefits obtainable from judicious use of such drugs, and of the potential for harm in their abuse. Drugs are important in an overall program, particularly when used to subdue symptoms until the benefits of the immunologic program begin to appear. However, these oral medications offer relief of symptoms only, and do not affect the fundamental allergic mechanism. Children sometimes pass through a period of allergy without further difficulty, but this is rarely true with asthma, which is the climax of a series of immunologic failings—not an early or transient phase. The primary goal is immunologic repair, with symptomatic relief a necessary corollary.

The single most important drug available for use in an acute asthmatic situation is epinephrine hydrochloride (parenteral), or ephedrine in the oral or suppository form. These act to relax the spastic musculature of the bronchi, to relieve edema, and perhaps also to decrease hypersecretion. In a nonacute situation, they may temporarily relieve persistent wheezing. Epinephrine is also available in spray form, which—though convenient for relieving symptoms—is sometimes overused; the patient develops tolerance, precipitating difficulties when further relief is needed.

Isoproterenol, available in oral and buccal tablet form and as a nasal spray, has similar properties; although not as effective as epinephrine, isoproterenol has a longer duration of action, usually provokes fewer side effects, and can be used more freely without the patient's developing tolerance. The theophyllines—particularly aminophylline in rectal suppository form—offer an alternate means of bronchodilation.

Tremendously valuable are the inorganic iodides, which act specifically to thin out thick mucus which sometimes builds up in the bronchi and the smaller air passages. Used reliably for more than sixty years, the inorganic iodides are far more effective mucolytic agents than are the organic products.

Antihistamines have no place in the treatment of bronchial asthma; in fact, their drying action may cause plugging of the already-narrowed airways. When upper-respiratory allergy such as pollinosis supervenes, however, the child may obtain relief from antihistamines in a dosage that will not exacerbate the lower-respiratory problem.

The corticosteroids pose a threat and a challenge to the physician treating bronchial asthma; because they can so dramatically relieve asthmatic symptoms, one may be tempted to use them freely in every case. Yielding to this temptation may have a doubly unfortunate effect: not only will symptoms be palliated without immunologic benefit, but also, the physician may be lulled into a state of inactivity. *The prolonged use of corticosteroids alone is an admission of therapeutic failure.* Unrestrained use of steroids can foster unwanted results such as:

1. **Retardation of young children's skeletal growth.** (In many cases, fortunately, a compensatory gain in bone growth occurs when steroids are discontinued.)

2. **Cushing's syndrome,** the most frequently cited unwanted effect; no steroid is entirely free of this complication.

3. **Addiction.** Prolonged use may occasion severe psychological and/or pharmacologic addiction, some addicted patients absolutely refusing withdrawal.

4. **Central nervous system disturbances** such as euphoria, depression, headache, irritability, aggressiveness, appetite increase, and sleep disturbances. Infrequently, large doses have produced frank psychoses.

5. **Complications** such as reactivation of healed or latent tuberculosis, or the spread of dangerous viral infections.

6. **Adrenal gland atrophy;** with dampening of gland function occasioned by even a minimum dose of prednisone, impairment of vital functions is a danger when high, prolonged dosage is used. This affect may even lead to

7. **Death**—the ultimate side effect. Although no investigator has documented steroid-caused death, significant evidence is rapidly accumulating involving these drugs. *Item:* Deaths from asthma in children were practically unknown, prior to the steroid era, but since the advent of steroids, sudden unexplained death has come to asthmatic children who for months had been withdrawn from steroids. *Item:* Unexplained deaths during surgery have been reported in patients who had been taking corticosteroids up to some time prior to surgery. *Item:* In a number of automobile accidents, victims have died who apparently have not suffered lethal trauma; postmortems showed many instances of adrenal gland atrophy, subsequent investigation revealing that many of these persons had had prolonged courses of treatment with corticosteroids.[3]

We can postulate the relationship between long-term use of steroids, malfunctioning and atrophy of the adrenal glands, and inability to survive the massive effects of sudden stress. We can prove nothing, but any allergist must be extremely conservative in using these potent agents. Keep dosage to an absolute minimum; wean—gradually, not suddenly—as soon as possible; and reinstitute steroids prior to planned stress such as surgery. Use steroids only for children whose symptoms are severe during preliminary investigation and cannot otherwise be controlled, and for those failing to respond to apparently adequate immunological management. Thus, a comprehensive program of management for the asthmatic child must make judicious use of palliative medications not only to relieve discomfort but also to create an improved setting for immunologic treatment. Respiratory infections are a frequent complication and must be dealt with specifically and with the knowledge that they may complicate and hinder progress in improving the asthmatic situation. Also, the asthmatic child is particularly susceptible to dehydration, and in an acute situation fluids must be administered.

Some desperately ill asthmatic children fail to improve despite all measures. This group of "intractables"—possibly 10 percent of all asthmatic children—frequently improve in an institution (not necessarily one in a warm, dry climate). The determining factor seems to be a change in *emotional* climate, with release from familial conflict. There is much to recommend "parentectomy," first recognized in 1930, and often occasioning dramatic improvement in "clinical outcasts" for whom other measures have been unavailing.

Asthma is a complex condition. Perhaps because it involves respiration, a fundamental life mechanism, many researchers have attempted to understand it from a psychiatric viewpoint. "Wheezing is a cry for help, a scream of rage, a washing away, an expression of fear," etc.

In some cases, serious emotional factors require psychiatric help. When he believes that the child needs such help, the allergist should see that it is obtained. But of course not every asthmatic child needs psychotherapy; asthma is an immunologic disorder, not a psychiatric one, and the immunologic malfunction must always be the center of therapy.

Hope for the Child

Remember that the asthmatic child is not a hopeless cripple; he can be helped—in most cases, significantly. Teach him to live as nearly normal a childhood as he can, without fearing a little discomfort or shunning sports and social activities. Relieve his symptoms with medication. Lighten the allergic burden by "cleaning" his home of antigenic or irritative complications. Where emotional stress requires psychiatric help, see that such help is provided. Above all, study the child and carry out a specific program of immunologic therapy—the foundation, the cornerstone, and the keystone, all in one.

- Presented at a 1965 session of the Pennsylvania Allergy Association.

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Bacterial Endocarditis

Has the incidence of bacterial endocarditis changed since antimicrobic therapy was introduced?

In general, no, but there are (1) relatively more cases among the elderly, and (2) relatively more acute than subacute cases. Most infections affect rheumatic-fever-injured valves or congenitally defective ones; about 25 percent affect arteriosclerotic or calcified valves.

How have these differences in incidence come about?

The incidence and severity of rheumatic fever and its sequels have declined—thus there are fewer injured valves. (1) The percentage of elderly persons in the population has increased, with more instances of bacterial endocarditis seen among individuals in this group who present no evidence of valvular lesions. (2) Many procedures that reduce resistance and favor infection have been introduced in recent years, such as therapy with corticosteroids, and those involving the use of antineoplastic drugs, cardiac catheterization, and cardiac surgery. Following the latter, for example—particularly when a prosthetic heart valve is used—vegetations may appear up to eleven months postoperatively.

What about the removal of "infected" teeth and tonsils in an effort to prevent subacute bacterial endocarditis?

Such operations have been abandoned as useless—or worse than useless in cases where the traumas associated with their removal have caused the infection to occur, as have genitourinary tract manipulations and/or prolonged intravenous catheterization, particularly in persons with cardiovascular disease.

What antiendocarditis measures are recommended for patients requiring surgical operations, who have cardiovascular lesions?

On the day of operation, 600,000 units each of procaine penicillin and of crystalline penicillin are given intramuscularly, followed by 600,000 units of procaine penicillin for the ensuing two days. Oral administration is less reliable, but 0.25-0.5 gm. of penicillin V or phenithicillin may be substituted, every 4-6 hours, over the same period. For the penicillin-sensitive, erythromycin may be substituted in oral doses of 250-500 mg., four times daily. (In several instances, however, prophylactic management has failed to prevent subacute bacterial endocarditis.)

How greatly has antimicrobic therapy improved the prognosis?

Prior to 1940, the death rate was 100 percent; it now varies from 30 to 50 percent—the deaths resulting chiefly from cardiac or renal failure, or from the presence of emboli or of intercurrent infections; much depends on the causative microbe and the subject's age. The death rate for acute endocarditis is about 60 percent, that for subacute endocarditis, about 15 percent. Bacteriologic cure is possible in 90 percent of infections caused by penicillin-sensitive nonhemolytic streptococci.

How do the acute and subacute forms differ?

Only slightly, except in the severity and duration of the infection. Acute disease is caused chiefly by Staphylococci, pneumococci, and hemolytic streptococci. Subacute endocarditis caused chiefly by nonhemolytic streptococci has decreased from a former 60-67 percent to about 40 percent, but cases caused by Staphylococci have increased by 20-50 percent. Hemolytic streptococcal and enterococcal infections have also increased. Surprisingly, causation by gram-negative bacilli and fungi has not increased.

What is the current treatment of choice?

Bactericidal rather than bacteriostatic agents are needed. When the bacterium is sensitive to penicillin, the usual recommendation is: penicillin, 2-5 million units per day, intravenously or intramuscularly, for 4-6 weeks. In instances of resistant enterococcal infections, or those wherein no bacteria can be discovered in blood cultures, penicillin in doses of 10-100 million units, and streptomycin, 1-2 gm., are needed. For staphylococcal infections, similar large amounts of penicillin are required, but if the cocci are resistant, methicillin, oxacillin, or ampicillin is substituted. If therapy fails after six weeks, it should be discontinued, and the use of a different agent considered. For patients sensitive to penicillin, less satisfactory bacteriostatic medications such as erythromycin, tetracycline, or chloramphenicol may be tried. Desensitization to penicillin is unreliable and hazardous. In addition, antihistaminic drugs and corticosteroids do not prevent allergic reactions.

• William G. Leaman, Jr., M.D., questions Hobart A. Reimann, M.D., professor of medicine, The Hahnemann Medical College and Hospital, Philadelphia. Dr. Leaman, Fellow, Council on Clinical Cardiology of the American Heart Association, edited this brief for the Council on Scientific Advancement, in cooperation with the Pennsylvania Heart Association.

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PRECAUTIONS AND SIDE EFFECTS: Electrolyte imbalance with hypokalemia, hypochloremic alkalosis and hyponatremia may occur. Other reactions may include blood dyscrasias, hyperuricemia and gout, nausea, jaundice, anorexia, vomiting, diarrhea, dizziness, paresthesia, photosensitivity and headache. Insulin requirements may be altered in diabetes.

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CONTRAINDICATIONS: AQUATAG (benzthiazide) is contraindicated in progressive renal disease or disfunction including increasing oliguria and azotemia. Continued administration of this drug is contraindicated in patients who show no response to its diuretic or antihypertensive properties.

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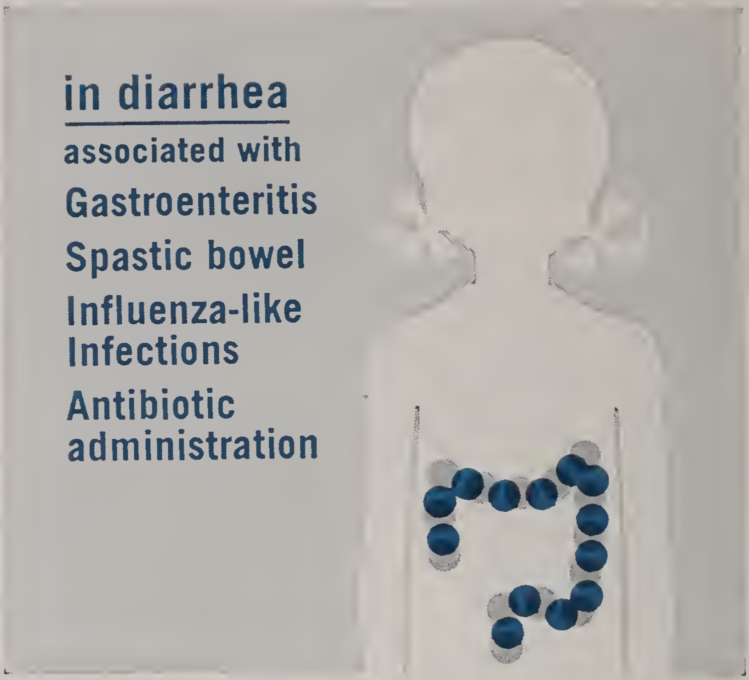

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*Based on 4 cc. per teaspoonful.

Maintenance dosage may be as low as one fourth the therapeutic dose.

Precautions: Lomotil, brand of diphenoxylate hydrochloride with atropine sulfate, is an exempt narcotic preparation of very low addictive potential. Recommended dosages should not be exceeded. Lomotil should be used with caution in patients with impaired liver function and in patients taking addicting drugs or barbiturates. The subtherapeutic amount of atropine is added to discourage deliberate overdosage.

Side Effects: Side effects are relatively uncommon but among those reported are gastrointestinal irritation, sedation, dizziness, cutaneous manifestations, restlessness and insomnia.

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SEARLE

Research in the Service of Medicine

Implications of Hepatic Coma

New concepts in the pathology, pathogenesis, and clinical picture of a poorly-understood syndrome, with therapy methods delineated

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Philadelphia, Pennsylvania

Many patients with severe acute and chronic liver disease develop a syndrome usually referred to as "hepatic coma," often the terminal episode of the disease. The term is a poor one, since the syndrome may occur without loss of consciousness and may develop as a result of some extrahepatic factor, with no evidence of deterioration in liver function. This is particularly true of chronic hepatic disease, especially Laennec's cirrhosis; most of the observations and investigations of hepatic coma have been carried out in cirrhotic patients—chiefly because patient material is readily available and the relatively static nature of cirrhosis allows time for study. The disorder is increasingly important; in the past 12 years, we have observed over 1,500 cases of Laennec's cirrhosis, with about two hundred patients in hepatic coma.

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In addition to severe acute and chronic hepatic disease (which may be of any type), the second component for a diagnosis of hepatic coma is the presence of a psychiatric and/or neurologic disturbance such as aberrations in mentation, disorders of consciousness, alterations in motor function, and electroencephalographic changes. Usually, the type of liver disease has little influence on the cerebral manifestations of hepatic coma.

Clinical Features

Although the neuropsychiatric abnormalities are far from pathognomonic, certain features should be stressed. The patient with hepatic coma is usually torpid, quiet, and apathetic. Agitation and an active hallucinatory state may occasionally occur, especially in coma due to acute liver disease, but is much more common in the acute alcoholic syndromes, usually affording a useful differentiating feature. In the early stages of hepatic coma (sometimes referred to as precoma), the mental aberrations may be quite subtle, noticeable only to friends or family and detectable only by careful testing.

We have found that focal neurologic signs and convulsions are relatively rare. Their presence demands a careful search for some other neurologic disorder—especially subdural hematoma, a fairly common accompaniment of Laennec's cirrhosis.

Perhaps the clearest diagnostic sign in hepatic coma is the disorder in motor function known as the "liver flap" or asterixis. It has been rarely described in a variety of other conditions. Since it is basically due to an inability to maintain a posture, it may be absent at rest. It is best demonstrated by having the patient hold his arms outstretched with the wrists dorsiflexed. In this position the tremor is seen as a gross, irregular movement involving primarily the metacarpophalangeal joints and the wrists. An abductor-adductor motion of the fifth finger may accompany or precede the flap. The liver flap may be elicited in other parts of the body such as the head, tongue, and feet.

The electroencephalographic (EEG) changes in hepatic coma, although fairly characteristic, are rarely if ever necessary for diagnostic purposes. They may develop or disappear with surprising speed. As (using an EEG), one monitors a patient lapsing into hepatic coma, the initial changes usually occur over the frontal lobes and appear as bursts of bilateral, symmetrical, slow delta-wave activity. As the disorder becomes more profound, the slow wave activity spreads to involve all cortical areas, and becomes persistent throughout the entire record.

The pattern of the neuropsychiatric abnormality of hepatic coma varies considerably among patients, but a given patient tends to exhibit the same pattern in recurrences.

Pathology

Many pathologic changes have been described in the nervous system in patients with hepatic coma. The most characteristic changes are increases in size and number of protoplasmic astrocytes, well described by Foley and Adams about twelve years ago. These changes are seen throughout the brain, but are especially noticeable in the basal ganglia. Not pathognomonic, they are seen in other cerebral states, but they are sufficiently suggestive so that the neuropathologist can suspect the diagnosis. Similar histologic changes have been produced in the brains of rats which have been made cirrhotic by means of carbon tetrachloride or cirrhotogenic diets. Some recent neurophysiological studies indicate that the astrocytes may play an important role in the transport of metabolites or nutrients in the central nervous system. Abnormalities in these cells therefore may play a role in the pathogenesis of hepatic coma.

In other experiments, a syndrome resembling hepatic coma clinically and electroencephalographically has been produced in dogs by damage to a portion of the reticular system of the brain, specifically that around the tegmentum of the brain stem. This system is composed of loosely arranged neurons and has connections with all portions of the cerebral cortex. Some neurophysiologists feel that this area constitutes the prime center of conscious awareness and that it exerts control over the cerebral cortex. More study is necessary in this field.

Pathogenesis

Much attention has been focused on the biochemical pathogenesis of hepatic coma; ammonia continues to be the center of attraction. Many if not most cases of hepatic coma apparently are associated with increased arterial blood levels of ammonia.

Evidence supports the concept that ammonia disrupts the Krebs cycle and interferes with cerebral metabolism by combining with alpha ketoglutaric acid to form glutamic acid, and with glutamic acid to form glutamine. Experiments with N^{15} labeled ammonia confirm the fact that glutamine synthesis is the ultimate fate of most ammonia in the body. High glutamine levels have been observed in the cerebrospinal fluid of patients in hepatic coma, and a decreased brain content of alpha ketoglutarate has been reported. On the other hand, increases in both serum and cerebrospinal fluid alpha ketoglutarate have also been noted.

Also debated is whether or not ammonia itself is the toxic agent which in some cases produces hepatic coma. Certainly all of the manifestations of hepatic coma can be reproduced by the administration of ammonium salts to a patient with liver disease. On the other hand, there is no evidence that high concentrations of ammonia disturb the patient who has a normal liver and brain. Evidence does suggest that some factor other than ammonia must also be involved; an active search for this additional factor continues. Enzyme deficiencies, decreases in enzyme activators, and other changes have been postulated, but none have been proved. Some factors deserve special mention, however.

The synthesis of acetylcholine is decreased in the presence of increased ammonia. Glutamic acid is apparently essential for the formation of acetylcholine. According to one theory, the conversion of glutamic acid to glutamine by ammonia might deprive the brain of acetylcholine and produce a state of biochemical decerebration.

Alkalosis appears to increase the toxicity of ammonium salts in animals. Alkalosis occurs fairly frequently in the cirrhotic patient. A combination of increased pH and low CO_2 was found in 37 of 57 compensated cirrhotics in our hospital. The alkalosis appears to be a respiratory alkalosis but its exact pathogenesis is not clear. Hyperventilation due to stimulation of the respiratory center by ammonia or some other product has been postulated. The degree of arterial unsaturation noticed in some cirrhotics, at times secondary to portal-pulmonary venous shunts, has been mentioned as a possible respiratory stimulant. Anoxia itself is not a potent respiratory stimulant and the anoxia of cirrhotic patients is rarely extreme. At any rate, as the blood pH rises, the passage of ammonia and ammonium salts across the blood brain barrier is enhanced; it has been postulated that this mechanism may produce hepatic coma. In a small number of hepatic coma patients treated with acidifying infusions, no clinical benefit was noted, although there was a drop in blood ammonia levels.

Known to play an important role in cerebral metabolism is 5-hydroxytryptamine or serotonin; some investigators have reported a decreased excretion of 5 HIAA in the presence of liver disease. It has been postulated that severe liver disease may affect the production of 5-hydroxytryptophan, a precursor of serotonin, from tryptophan. It has been reported that the administration of 5-hydroxytryptophan to patients in hepatic coma has reverted abnormal electroencephalograms to normal, although clinical manifestations of hepatic coma were said to be unchanged. A search for amines other than ammonia has been made, but no abnormal levels have consistently been found.

Hypokalemia is an extremely important factor. The role of potassium in the etiology and therapy of hepatic coma will be discussed later.

It appears certain that hepatic coma is a syndrome of diverse etiologies. Dr. Sheila Sherlock has said that one should not speak of "hepatic coma," but rather of "the hepatic comas." She has thus emphasized that many apparently unrelated factors and clinical or metabolic derangements will produce what seems to be the same syndrome. It may never be possible to find a common sequence for the many diverse situations which produce the syndrome.

Clinically, we have found it both convenient and helpful to classify hepatic coma from a pathogenetic standpoint into endogenous and exogenous types.

Endogenous or spontaneous coma refers to that type where no apparent precipitating factor is known, and where the syndrome appears to have developed as a result of progression of the underlying hepatic disease. In endogenous coma, blood ammonia values tend to be normal. Management is more difficult, and response to therapy—and the prognosis—much less favorable.

Many factors can precipitate hepatic coma, the pathogenesis of some of them clearly related to ammonia metabolism. One should remember, however, that the blood ammonia level represents a balance between ammonia production from the intestinal contents, removal of the ammonia by the liver, ammonia uptake and release from peripheral tissues, and ammonia production by the kidneys. Changes in any of these mechanisms may alter the blood ammonia level.

Table 1 lists the types of coma experienced in 146 cases—all secondary to cirrhosis of the liver.

TABLE 1

Precipitating Factors in 146 Patients With Hepatic Coma Due to Cirrhosis of the Liver

Endogenous		31
Exogenous		115
Gastrointestinal Hemorrhage	(55)	
Protein Intolerance	(12)	
Drugs	(7)	
Hypokalemia	(27)	
Infection	(7)	
Surgery	(8)	

Note that in the vast majority of instances, the source of excess nitrogenous material is the gastrointestinal tract. This development is usually secondary to gastrointestinal hemorrhage, a physiological event analogous to the administration of high protein diet. A fall in hepatic blood-flow and depression of liver function secondary to hemorrhage may be additional factors. The appearance of hepatic coma or an increase in the arterial blood ammonia may be the first clue to the presence of gastrointestinal hemorrhage. In the presence of hepatic coma occurring without apparent cause, gastrointestinal hemorrhage should be suspected. Stomach aspiration with a Levin tube is indicated, as are repeated stool examinations for blood.

Excess dietary protein may be a cause of hepatic coma, a phenomenon usually designated as "protein intoxication." This is frequently a problem following portocaval shunt where blood draining the GI tract bypasses the liver.

From a historical standpoint, protein intoxication has been recognized literally for centuries. An interesting note of it was made in Shakespeare's 12th Night (Act I, Scene III):

Sir Andrew: . . . I am a greater eater of beef, and I believe that does harm to my wit.

Sir Toby: No question.

In addition to oral nitrogenous substances, the use of intravenous nitrogen-containing solutions may also precipitate hepatic coma.

The carbonic anhydrase inhibitors such as acetazolamide may produce a rise in blood ammonia, occasionally precipitating coma. The mechanism here is apparently an increase in the ammonia content of the renal vein, accompanying the decrease in ammonia excretion in the urine.

The exact mechanism by which surgical procedures precipitate hepatic coma is unknown, but many factors including pre- and postoperative medication, anesthesia, metabolic effects of surgical trauma, blood pressure changes, GI bleeding, and alterations in fluid and electrolyte balance may play a role. Similarly, multiple factors may combine to produce hepatic coma in infection. The injudicious use of sedatives and narcotics may also induce hepatic coma.

We have seen either a growing incidence or a growing awareness of the fact that hepatic coma may be induced by hypokalemia. Frequently the hypokalemia is spontaneous, apparently secondary to the hyperaldosteronism that is a frequent accompaniment of decompensated cirrhosis. It may be produced or aggravated by the use of diuretics—particularly those of the thiazide group, any of which may do it. We have seen little hypokalemia produced by mercurial diuretics. Triamterene and spironolactone tend to increase blood potassium levels.

The mechanism by which hypokalemia induces the picture of hepatic coma is not clear. In our experience, arterial ammonia levels have been normal or near normal although some have reported increases in blood levels following the hypokalemia induced by the administration of thiazide compounds.

The presence of accompanying alkalosis could account for these patients' increased sensitivity to ammonia. Certain animal studies also indicate the importance of potassium in reactions involving the utilization of ammonia in brain tissue.

We have been impressed with the rapidity with which (1) hypokalemia can produce hepatic coma, complete with electroencephalographic changes and liver flap, and (2) this syndrome can disappear following the administration of potassium. I would like to emphasize again the importance of this mechanism in the production of hepatic coma.

Therapy

The general prognosis and therapeutic response is better in the exogenous types of coma. Obviously, one first searches for an exogenous factor, and means for its control or elimination. Dietary protein restriction and the use of antibiotics to diminish bacterial action in the gastrointestinal tract form the basis of therapy. For the first few days we employ a regimen of no protein intake, all calories being derived from use of intravenous infusions of glucose in water. If the patient responds to this therapeutic regimen, oral protein is started in an initial dose of 20-30 gms. daily and increased every several days, by 10-gm. increments, to about 60 gms.

Neomycin is favored by most observers as the antibiotic of choice, although there is evidence that others, specifically kanomycin and paromomycin, are equally satisfactory. The broadspectrum tetracyclines do not appear to be as effective as the poorly-absorbed ones mentioned. Neomycin is usually started in a dosage of 8 gms. daily, then reduced to 4 gms. Prolonged administration should be avoided, the usual course being from 7-10 days. One should watch for staphylococcic enterocolitis, a definite hazard.

In view of the frequency of hypokalemia, we routinely suspect its presence in all hepatic coma patients until we prove otherwise. The electrocardiogram provides a readily available index of the serum potassium level. If hypokalemia is present, treatment should be by vigorous parenteral administration. We often give up to a total of 160 mEq. of potassium chloride in 24 hours, and concentrations of 80 to 120 mEq./L may be used. Although the oral preparations cannot be relied upon to correct hypokalemia, they may be used as maintenance or prophylactic therapy. One should watch for hyperkalemia (although it is unlikely in the presence of an adequate urinary output), and for renal insufficiency associated with cirrhosis.

Glutamic acid has been used in the past to combine with ammonia to form glutamine. Large doses of sodium glutamate (up to 40 gms.) were administered. Clinical results were unconvincing, and since this therapy involved the administration of large amounts of sodium, it has been largely abandoned by most observers as ineffectual.

Levo-arginine or dextro-levo-ornithine have also been used in an attempt to accelerate the conversion of ammonium to urea. Some groups have reported lowering of blood ammonia, but clinical improvement has not been impressive. Protamine, which is composed largely of arginine, has also been used experimentally for this purpose.

Hemodialysis by extracorporeal or peritoneal methods has been employed to lower blood ammonia, and in the treatment of hepatic coma. In some cases, blood ammonia levels have been lowered; but the procedure is difficult and has not brought clinical improvement.

On various occasions, we have been impressed with the use of corticotropin in some cases of endogenous coma. The improvement noted, however, has been temporary, and no lasting remissions have been noted. The dosage has been 80 units per day, intramuscularly or intravenously. The therapy should not be extended beyond a period of 5 days because of the danger of provoking gastrointestinal bleeding. Large doses of corticosteroids have been employed in the treatment of hepatic coma produced by acute hepatitis.

Surgical exclusion of the colon by colectomy or by ileosigmoidostomy has been employed in a small group of patients who have had protein intoxication following portocaval shunt.

In the past eight months we have performed colon exclusion by ileosigmoidostomy on two patients. The first was a forty-two-year-old man with severe protein sensitivity, following portocaval shunting for bleeding varices secondary to postnecrotic cirrhosis. He was unable to tolerate more than 20 gms. of protein daily, even with the use of neomycin. The second was a sixty-three-year-old man with a similar phenomenon following a portocaval shunt. His underlying disease was Laennec's cirrhosis. Both patients had severe lethargy and mental confusion.

There was marked improvement almost immediately following colon exclusion and at present both are tolerating 60-70 gms. of protein without difficulty. This, then, is a procedure deserving serious consideration.

Dr. Myerson presented this paper at the One Hundred Sixteenth Annual Session of the Pennsylvania Medical Society in Atlantic City, September 23, 1965.

Salmonella Complexes

Salmonella lipopolysaccharide complexes which can easily be extracted from the bacterial cell represent biologically important substances. They exhibit *nonspecific endotoxic activities* independent of the *Salmonella* species from which they are derived, and they stimulate the production of immune antibodies which are *highly specific* for the bacterium from which the lipopolysaccharide was obtained.

It has been shown that the polysaccharide component of the lipopolysaccharide is responsible for the O antigenic serological specificity. It is known that *Salmonella* species can undergo mutation to the so-called R (rough) mutants, which are, in general, characterized morphologically by their "rough" growth on agar.

These mutants are nonpathogenic, as they are quickly phagocytized in the animal. They have also lost O-serological specificity, and simultaneously have acquired a more nonspecific R-serological specificity which gives rise to many cross-reactions which are absent from the parent strains. Chemically, R lipopolysaccharides are lacking special sugars.

A set of mutants was obtained from *S. minnesota* which, according to the sugar composition of their lipopolysaccharides, could be classified into groups with from four to zero aldohexose sugars present in the polysaccharide component. It is believed that these R mutants synthesize incomplete O antigens, thus representing intermediates in the biosynthesis of O antigens.

Primarily, results showed that these sugar-poor lipopolysaccharides are as active pyrogens as the parent lipopolysaccharides are, but that their lethal toxicity in mice is reduced. It is believed that R lipopolysaccharides represent good models for studying the hitherto unknown structures in these molecules responsible for endotoxic activities.—Summary of a presentation given by Dr. Otto Luderitz, Max Plank Institut für Immunbiologie, Freiburg, West Germany, at "Lectures on Immunochemistry," sponsored by the Department of Microbiology, Temple University School of Medicine.

The Enlarged Ovary

The enlarged ovary does not necessarily imply harboring of a true neoplasm, for a great number of so-called functional cysts such as a persistent, enlarged follicle or lutein cyst may be present, although rarely exceeding the size of a tangerine. There may be no or only slight symptomatology, and there may or may not be any abnormal vaginal bleeding. On occasion, differentiation between these conditions and a tubal pregnancy is difficult.

Of most importance is the fact that these usually need no surgical intervention, and require only periodic observation, as in the course of two-three months they frequently disappear of their own accord. Our policy with ovarian cysts should vary considerably according to the age of the patient.

A small cystic mass in the youthful patient is observed over the course of several months, for in many instances it disappears. As the age of the patient increases, the period of procrastination decreases, and with the postmenopausal patient any ovarian mass deserves exploration. A definitely solid ovarian tumor indicates laparotomy if it is certain that one is not dealing with a harmless, subserous myoma; when any doubt exists, exploration is mandatory because of the potentially lethal nature of solid ovarian tumors which may occur in even young girls. Edmund R. Novak, M.D., Hahnemann Symposium on New Concepts in Gynecological Oncology.

Gastric Emptying

Gastric emptying is determined by the gastroduodenal pressure gradient acting against the resistance to flow encountered at the pylorus. The former is subject to regulation; the latter, although variable, is not utilized in regulating gastric emptying.

The gastroduodenal pressure gradient is determined by the balance between those influences that tend to increase it and those that tend to decrease it. Among the former are increases in volume of the gastric contents and increases in tone and motility of the gastric muscle. The latter are influenced by the autonomic innervation and are increased by psychic factors, intragastric mechanical and chemical stimuli, and stretch reflexes from the gastric muscle.

Factors that tend to decrease intragastric pressure are decreased in volume of gastric contents and inhibitory influences arising in the duodenum and upper jejunum. The latter are reflex and hormonal, and are initiated by chemical and mechanical stimuli associated with the gastric efflux acting on receptors in the intestinal mucosa. They include the enterogastric reflex and enterogastrone, both acting to relax the gastric musculature and inhibit its motility.

The balance between positive and negative forces is such that the rate of emptying is precisely adjusted to the capacity of the intestine to deal with the gastric efflux.—J. Earl Thomas, M.D., Thirteenth Hahnemann Symposium.

- It has been estimated that hospitals pay 3 to 5 percent of their total expenditures for drugs but that through charges to patients, drugs represent an estimated 8 to 15 percent of hospital income.

Tetanus Immunization, 1965

Mass inoculation conducted by the York County Medical Society; the program's implementation reviewed, and recommendations made

WILLIAM T. LAMPE, II, M.D.
York, Pennsylvania

The need for nationwide tetanus toxoid immunization is currently receiving attention across the country."[1]

World War II experience with tetanus prophylaxis, and the serious allergic and anaphylactic reactions to tetanus antitoxin of equine origin, have given impetus to American physicians' interest in improving the immune status of the general population. Although annually, the reported cases of tetanus in the United States are appreciably less than five hundred, and the mortality probably less than 50 percent,[2] these statistics could be reduced drastically. Tetanus is a preventable disease. The availability of hyperimmune globulin from human sources has removed much of the danger from the acute treatment of wounded or injured patients. But the medical profession agrees that active immunization (prophylaxis) against tetanus is still the best approach.

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York County Project

During April and May of 1965, the York County Medical Society conducted a mass immunization program, setting up sixteen centers in York County—primarily in public schools. Some one hundred physicians administered 93,500 total doses of tetanus toxoid, the first immunizations being given on April 25, the second on May 23. About two hundred nurses and an uncounted number of lay personnel assisted in the project. Five days prior to the first toxoid administration, each participating physician received a memorandum outlining methods and suggested schedules of administration, and attempting to answer questions concerning effectiveness, reactions, and tetanus antitoxin.

Detailing administration, the memorandum stated that "½ cc. of tetanus toxoid is to be given *intramuscularly* into the deltoid region of the upper extremity, or in the upper outer quadrant of the buttock, or in the midlateral thigh of the infant or young child." No other instructions on the importance of the injection's being intramuscular were given to the physicians.

Wyeth Laboratories, Marietta, Pennsylvania, supplied the toxoid, in Tubex sterile cartridge-needle units, each disposable single-dose unit being designed and used for only one injection. The No. 25 gauge needle was five-eighths of an inch long.

In all sixteen centers, all tetanus toxoid was administered by physicians, many of whom were actively engaged in medical practice specialties such as ophthalmology, radiology, pathology, and psychiatry which did not involve the administering of injections of any kind.

Questionable Procedures

In several centers, I observed injections being given into the triceps area rather than into the deltoid, as recommended; some injections were given subcutaneously rather than *intramuscularly only*, as had been recommended. The latter was chiefly due to the inadequate length of the five-eighths-inch needle when toxoid was administered to obese patients.

Adverse Reactions

Allergic reactions to tetanus toxoid may be of the anaphylactic immediate or delayed type. Brindle, reporting a 0.5 percent reaction incidence, suggests that this is probably too high,[3] but adds that adrenalin should be readily available whenever inoculations are being done.

The number of adverse reactions in the York County project was estimated to be 1:20-30—much higher than that indicated in the literature. Edsall [4] has stated that "reactions to tetanus toxoid are so extremely rare as to be almost insignificant." In our project, delayed-type local reactions (the principal type observed), occurred 24-72 hours after the injection and lasted up to two weeks. Several local reactions which I observed, involved the entire arm (including forearm-to-wrist) with edema, erythema, induration, and considerable itching, requiring treatment. All individuals with delayed reactions had had tetanus immunization while in military service in World War II or in the National Guard; most of them had received the toxoid both on April 25 and on May 23, 1965, despite their needing only one postmilitary injection. They experienced a so-called "hyperimmune state," due to overimmunization. In a few systemic-reaction instances, patients experienced chill sensations and low-grade fever with associated malaise, over periods of 24-48 hours. No anaphylactic reactions were encountered in any of the centers.

Since adequate rapid response can occur in individuals receiving a booster dose as long as 15-18 years after primary immunization series,[5] the question arises as to how often a booster dose should be given. The present recommendation, "every 4-5 years," seems far too often.

Regarding subcutaneous administration, clearly, certain patients in the project received them for one or both of these reasons: (1) the short needle could not adequately penetrate the subcutaneous fat in the obese individuals, and (2) the toxoid was commonly administered in the area of the triceps muscle, contrary to recommendations.

Epinephrine Error

Distributed from a central point by registered pharmacists were identical boxes containing (and plainly labeled), "Tetanus Toxoid," and "Epinephrine," the latter in Tubex sterile cartridges—1:1000 epinephrine solution to be used in the event of anaphylactic reactions to the toxoid. But at one center, the first two patients in line were given epinephrine by mistake—an error which pointed up the necessity for even clearer identification and separation of the epinephrine, prior to its distribution to immunization centers.

Conclusions

1. Persons who have had primary immunizations such as those given in military service should receive only one injection—a so-called "booster dose"—rather than two injections. Physician-education, then patient-education, are necessary in preventing development of the hyperimmune state, with its attendant local reactions.

2. Briefing of physicians—especially those not in the practice of clinical medicine—would help insure the toxoid's being administered intramuscularly rather than subcutaneously. Perhaps more significant is the length of the needle used; a one-and-one-half-inch needle would be advisable in future mass immunization programs where intramuscular injection is indicated.

3. Reactions to tetanus toxoid are a problem primarily in the armed forces and in industry, where regulations require that periodic booster doses be given. McComb[6] has advocated dosage-reduction, to decrease the incidence of tetanus toxoid reactions. Although this may be a fairly good method for preventing some reactions, it is impractical in mass immunization programs such as the York County one unless a new, more dilute vaccine such as McComb advocates be made available. With recent evidence indicating that a good anamnestic response to tetanus toxoid can occur as long as eighteen years after a primary immunization,[7] the frequency of booster injections should be revised.

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Parietal Cell Mass

The gastric phase of secretion depends upon the response of the parietal cells to various secretogogues. The more parietal cells which present in the stomach, the greater the potential output of acid.

A reliable method is now available for estimating the total number of parietal cells, or the parietal cell mass (PCM), in experimental animals and in human autopsy material, as well as in patients before and after gastric resection. The augmented histamine test can satisfactorily demonstrate the relationship between PCM and maximal acid output in both human subjects, as well as dogs. It has been estimated that after maximal histamine stimulation, one billion parietal cells secrete at the rate of 20-26 mEq. per hour.

Although the maximal histamine response (MHR) may provide a satisfactory clinical measure of the PCM, it may not represent the maximal secretory capability of the stomach. Increased reactivity to histamine may occur when mecholyl, sham feeding, prednisolone, cortisone, or gastrin are added.

Portal vein ligation also results in an increased MHR, which cannot be explained by a concomitant increase in PCM. Decreased MHR occurs after vagotomy as well as after large doses of anticholinergic drugs. The reactivity of the parietal cells may be influenced by both neural and humoral mechanisms.—S. Philip Bralow, M.D., Thirteenth Hahnemann Symposium.

Why Not Ear Drainage?

Physicians may be relying too heavily on drugs to cure ear infections which cause childhood deafness, according to B. W. Armstrong, M.D., Charlotte, North Carolina.

Dr. Armstrong, an otolaryngologist, told the American Medical Association convention in Philadelphia that drainage of the middle ear also should be considered.

"The principle of early drainage has somehow fallen into neglect," he said. "Too often a needle in the buttock has been substituted for an incision in the tympanic membrane."

Prolonged antibiotic therapy will not remove the liquid, which may mask the development of mastoiditis or intracranial complications, he warned.

Menstrual Dysfunctions

Advances in knowledge of the physiology of menstruation in the diagnosis of problems and in treatment of menstrual dysfunctions will be explored at a symposium April 1-2 at the Bellevue Stratford Hotel, Philadelphia.

Sponsored by Jefferson Medical College and the Pennsylvania State University, the program will include a special session devoted to the problems of the climacteric.

For information contact John H. Killough, M.D., assistant dean, Jefferson Medical College, 1025 Walnut Street, Philadelphia, Pennsylvania 19107.

Prenatal Mumps

A fatal heart disorder in babies may be linked to mumps in the pregnant mother, two Minneapolis doctors recently reported. The condition, endocardial fibroelastosis, was indicated as possibly the result of prenatal mumps, although Drs. Joseph St. Geme and George Noren of the University of Minnesota School of Medicine made clear that no direct cause-effect relationship had been established.

What You Need to Know About Pennsylvania's 'Medicare' Program

■ This is the state Department of Public Welfare's summary of the principal provisions of Pennsylvania's new medical assistance (MA) program. Effective January 1, the program was made possible by the federal medicare law and in this state will cover the "needy" of all ages. This new program embraces and supersedes the old state Medical Assistance for the Aged, and Purchase of Hospital Care programs.

Who is eligible?

All persons receiving public assistance grants.
All medically needy persons.

Who is medically needy?

A medically needy person is one who has sufficient income or assets to pay for his basic maintenance but does not have sufficient resources to pay for his medical care. In figuring this the Department of Public Welfare exempts:

1. $2,000 annual income for basic maintenance for a single person.
   $2,500 annual income for basic maintenance for a two-person family.
   $750 each for basic maintenance of additional dependents.
2. Medical expenses for care not provided under the MA program.
3. Home, household furnishings, personal affects, and car.
4. Insurance—cash surrender value up to $500 *each.*
5. Other property assets with a combined net value up to $2,400 for a single person, $3,840 for a family.

What services does MA provide?

For medically needy persons:

1. Inpatient hospital care for up to 60 days in a benefit period at average per diem costs up to $25 per day.
2. Post-hospital care in private nursing homes for up to 60 days during a year at rates ranging from $160 to $220 monthly, depending on the nursing home's classification.
3. Visiting nursing service at home, as prescribed by a physician, at cost up to $4.00 per visit.
4. Post-hospital care provided by the hospital in the home, at cost up to $5.00 per day.
5. Public nursing home care for persons over age 21, at average per diem cost rates.
6. Care in mental institution for persons age 65 or over, at average per diem cost rates.

(The income and property limits for public nursing home care and care in a mental institution are different from and lower than those for other types of care.)

For persons receiving public assistance grants:

All of the above services *plus* the services of dentists, clinics, and physicians for care outside of a hospital and medicines and appliances prescribed in the course of such care.

Questions and Answers About MA

Are relatives not living with the applicant liable for payment for his medical care?

Only persons under 60 who are spouses and parents of minor children are required to contribute to the cost of medical care provided [if] they are financially able to do so.

Are there liens on property?

No repayment is required from property for MA for which the person was eligible and no liens are taken on property.

Where is application for MA made?

Eligiblity for MA is determined by the county board of assistance. Persons receiving public assistance grants are automatically eligible for all the services described unless they have resources like Blue Cross or Blue Shield to meet them.

Medically needy persons must apply to the local county board of assistance.

How is MA financed?

The federal government pays 54.3 percent of the expenditures for persons who are getting a federal category of assistance or who meet certain federal requirements. The state must meet the full cost of medical care for other persons. State costs will be about 52 percent of total MA expenditures.

What are the federal requirements for the progressive development of a state's MA program?

To receive federal medical assistance funds after July 1, 1967, the state's Medical Assistance Program must, effective no later than July 1, 1967, provide for payment of the following:

1. The "reasonable cost" of inpatient hospital care, as defined in federal regulations now being developed;
2. Physicians' services to the medically needy, in the hospital, the home, and the office;
3. Physicians' services to public assistance recipients in the hospital (payment is now provided for physicians' services to public assistance recipients in the home and office);
4. Outpatient hospital services to the medically needy (payment is now provided for outpatient hospital services to public assistance recipients);
5. Other laboratory and x-ray services, as required by federal regulations now being developed;
6. "Skilled nursing home care," as defined in federal regulations now being developed, and to the extent not now provided in the Medical Assistance Program.

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Complete literature available on request from Professional Services Dept. PML.

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Ectopic Pregnancy Fatalities

Early diagnosis could save at least half of these lives. Eight years' records for Philadelphia are evaluated, and safeguards recommended.

JOHN R. BOWER, B.A.
Philadelphia, Pennsylvania

Fatalities in ectopic pregnancy, although decreasing due to improved diagnostic techniques and increased physician awareness, still play a significant part in maternal mortality. While only one woman in one hundred with ectopic pregnancy dies of this cause,[17] in 1957 this condition was responsible for 7.2 percent of maternal deaths in the United States.[15] Montgomery, studying 28 ectopic pregnancy deaths in California from 1957 through 1962, estimated that 89 percent of them were avoidable.[12] Schoeneck, after reviewing 25 cases in New York from 1957 through 1961, judged that 52 percent of the deaths were preventable.[17]

This paper examines the ectopic pregnancy deaths in Philadelphia from 1957 through 1964, to determine whether similar conditions exist in this area. Possible methods of reducing mortality from ectopic pregnancy are discussed.

■ *Mr. Bower, who is a fourth-year student at the Jefferson Medical College, prepared this paper under the preceptorship of the Office of the Medical Examiner, Department of Public Health, City of Philadelphia, Joseph W. Spelman, M.D., medical examiner. Mr. Bower, a graduate of Haverford College, is from Wyomissing, Pennsylvania, and now makes his home in Mt. Ephraim, New Jersey.*

Twenty-two deaths due to ectopic pregnancy were found in the records of the Division of Maternal and Child Welfare, Community Health Services, Department of Public Health for the City of Philadelphia. We believe that these records are complete, reporting all the deaths due to this cause. Clinical records available for study in twenty-one of these cases included the confidential files of the Office of the Medical Examiner in the twelve cases reported to that office. These sources were supplemented, where records were inadequate, by interviews with the attending physicians. Patients considered had been treated in large teaching institutions as well as in small private hospitals, and by medical or osteopathic physicians.

The cases are placed in four categories: unavoidable; avoidable (professional factors); avoidable (patient factor); and questionable. Examples of each category except questionable are presented below.

Unavoidable

A twenty-four-year-old multigravida was found dead in bed a few hours after she was heard to be moving about in her apartment. There was no history of pain, vaginal bleeding, or pregnancy. Autopsy revealed the early rupture of a left ovarian pregnancy with massive hemoperitoneum.

Avoidable (Professional Factors)

A twenty-three-year-old primigravida, admitted to the hospital in shock, died shortly thereafter. Four days prior to admission, she had had an episode of dizziness and vomiting for which she was taken to the hospital and treated for "gas." The patient and the physician knew she was pregnant at this time. She was discharged. The next day she developed left lower quadrant pain that did not subside; she was taken to the hospital the following day. A history of old pelvic inflammatory disease was elicited; and on physical examination, she had a soft abdomen with tenderness in the right lower quadrant and hypogastrium with adnexal tenderness on pelvic examination. Her hemoglobin was 9.4 grams percent, with a leukocyte count of 11,600. The physicians in the emergency room believing that her symptomatology had a psychological basis, treated her with a mild sedative and antispasmodic drug. On leaving the hospital, the patient collapsed and was brought back to the accident ward, but was sent home without any further examination or treatment. She was in bed the next day until late in the evening, when she was taken to the hospital—where she died. Autopsy revealed a ruptured left tubal pregnancy, with a massive hemoperitoneum.

Avoidable (Patient Factor)

A thirty-seven-year-old, obese primigravida was pronounced dead on arrival at the hospital. About nine hours before her death she had an attack of severe abdominal pain, accompanied by profuse sweating. At this time she contacted her physician, who advised immediate hospitalization, which the patient refused. Four hours later she had a recurrence of the attack, again contacted her physician, but again refused hospitalization. This time, however, the physician informed her that she was an acute surgical emergency and was more urgent in his recommendation of hospitalization. Three hours later the patient finally acquiesced, but died on the way to the hospital. Autopsy revealed a ruptured left tubal pregnancy with a massive hemoperitoneum.

Discussion and Results

All authors on the subject agree on the difficulty of diagnosing ectopic pregnancy. Eastman states: "Most of these reports point out that the common factors responsible for mortality in ruptured ectopic pregnancy are:

failure of the family physician to recognize the acute nature of the condition, delay in hospitalization, tardiness in operation in the hospital, and too late and too little blood transfusion." [6]

In reviewing the literature since 1957, apparently from 12 percent [5] to 50 percent [15] of women with ectopic pregnancy are not so diagnosed prior to surgery. Hall and Todd have shown that when the diagnosis of ectopic pregnancy was considered, it was found in only 40 percent of their cases.[7]

A good history and physical examination, although the most important aspects of any work-up, are not conclusive enough, in a large percentage of instances, to make the diagnosis. Therefore, many adjunctive measures have been devised to aid the physician: Culdocentesis, culdoscopy, colpotomy, abdominal tap, Arias-Stella reactions seen in endometrial curettings, and pregnancy tests. Different authors prefer different studies, each depending largely on his own experiences.

In Philadelphia from 1957 through 1964, there were 197 maternal deaths, 22 (11 percent) due to ectopic pregnancy. Ten of these fatalities (48 percent) were judged to be avoidable (Table 1); the percentage is based on the 21 cases where records were available. The average age of the fifteen Negro and six white women with records available was twenty-nine. There were two abdominal pregnancies and one ovarian gestation. The recurrence rate of ectopic pregnancy and the rate of previous history of pelvic inflammatory disease was about the same as those noted by other authors (Table 2). The remaining discussion will be primarily concerned with the eighteen tubal gestations.

TABLE 1

Classification of Cases

Unavoidable	9	(42.9%)
Avoidable (professional factors)	8	(38.1%)
Avoidable (patient factors)	2	(9.5%)
Questionable	2	(9.5%)
TOTAL	21	(100%)

The gravity of the eighteen women with tubal pregnancies is significant in that most (sixteen) were multigravida; this does not agree with the generally held concept that a large percentage of women with tubal pregnancies exhibit a history of infertility [14, 8, 16, 4, 15] (ours is not the only study to disagree with this concept.)[19]

TABLE 2

Past Medical History

	Present Study	Others*
Previous ectopic pregnancy	4.8%	6.8%
Previous pelvic inflammatory disease	24 %	33 %
Previous pregnancy	89 %	33 %

* 3, 2, 19, 18, 14, 5, 8, 16, 4, 15

Table 3 compares the incidence of the various symptoms of these ectopic pregnancies with the incidences found in several recent studies. The incidence of the three cardinal symptoms of tubal pregnancy—abdominal pain, amenorrhea, and vaginal bleeding—coincide with the figures obtained by other authors, except that vaginal bleeding was less frequent in the present study.

TABLE 3

Symptomatology

	Present Study	Other Studies
Abdominal pain	94.5%	94.5%
Shoulder pain	5.5	20.8
Vaginal bleeding	50	84
Amenorrhea	78	80.2
Nausea, vomiting and/or diarrhea	28	48
Syncope or faintness	39	19.7

The incidences of positive physical findings in these cases is not significant, due to the small number of cases in which results of an adequate physical examination were reported. Only six cases (37 percent) had the results of a pelvic examination in their clinical records (six out of sixteen cases; two patients pronounced dead on arrival at the hospital had not consulted physicians during their pregnancies. Four pelvic examinations were done in correctly-diagnosed cases (of the seven out of sixteen cases correctly diagnosed on admission), and two of the pelvic examinations were done in incorrectly diagnosed cases (two of nine). Table 4 lists results of the six pelvic examinations.

Only seven of the sixteen cases (43 percent) had the benefit of any special diagnostic studies. The diagnosis was eventually made in all cases where positive results were obtained, except for a positive pregnancy test that was ignored. False negatives did, however, result in delaying the diagnosis in three of the seven cases.

TABLE 4

Pelvic Examinations on 6 Cases

Enlarged uterus	3
Bulging cul-de-sac	2
Tender cul-de-sac	1
Adnexal mass	2
Adnexal tenderness	5
Pain on motion of cervix	2

While the mortality rate from ectopic pregnancy is low, it could be further reduced; the diagnosis is often missed in typical as well as in atypical cases. The possibility of an ectopic pregnancy should be kept in mind when one is treating any woman of childbearing age presenting with abdominal pain or vaginal bleeding. In the atypical case, we suggest a more liberal use of the special diagnostic tools, with careful interpretation of their results.

Summary and Conclusions

1. There were 22 cases of fatality due to ectopic pregnancy in Philadelphia from 1957 through 1964. These accounted for 11 percent of all maternal mortality.

2. In cases where data were available, 50 percent of the deaths were judged avoidable.

3. Sixteen of the eighteen cases of tubal pregnancy (89 percent) were multigravida.

4. Incidences of previous pelvic inflammatory disease (24 percent) and of previous ectopic pregnancy (5 percent) were similar to those cited by other authors.

5. The symptomatology in these cases was similar to that reported by others.

6. Greater use of special diagnostic aids could possibly reduce the incidence of these fatalities.

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Death by Diagnostic Procedure

The aims of medicine are to alleviate suffering and to ameliorate, cure, or prevent disease. The furtherance of these aims usually requires a medical diagnosis, but this is not always true.

Unfortunately, as diagnostic procedures increase in accuracy, there is also an increase of the dangers associated with their use. Although the proliferation of blood tests has created no great harm (except to the patient's pocketbook), the introduction of some other diagnostic methods has created new dangers for the patient. Cardiac catheterizations, percutaneous biopsies of internal organs, and the introduction into the body of certain roentgenographic contrast media, all may cause serious complications, including death. Of course the published statistics show that most of these diagnostic procedures have mortality rates of one per thousand or less, a trifling incidence. In the case of the patient who dies, however, the mortality rate is 100 percent. The patients who do not die of a reaction to a diagnostic procedure are subjected to prolongation of their hospital stay, increased expense, additional suffering, and in some cases, residual disability.

Accordingly, every physician must assess the need for the information derived from a test in relation to its possible hazards. The idea of need, not mere desirability, should be emphasized. Detailed diagnoses are not always necessary. For example, a patient who has icterus, cachexia, anemia, and an enlarged, hard, irregularly nodular liver should not be subjected to uncomfortable and expensive diagnostic procedures in order to find the source of the metastatic cancer. A physician's curiosity, or his inability to tolerate ambiguity, is not sufficient justification for ordering a test.

Unnecessary tests may create other hazards. These are owing to overloading the facilities of a laboratory or of a radiology department to such an extent that they cannot produce accurate work. To cite an extreme possibility, an incorrectly-matched blood may be transfused because the technician who carried out the cross-matching was so busy doing unnecessary laboratory tests that she performed the typing too hurriedly to be accurate.

It is sometimes difficult for a physician to refrain from ordering unnecessary tests. Some physicians, having graduated from medical schools and hospitals that emphasize tests over bedside medicine, find themselves helpless in practice without a multitude of tests. Many patients look askance at a physician who orders few tests, because articles in lay publications have persuaded many people that medicine is a science. Nevertheless, some patients cannot physically afford the luxury of unnecessary diagnostic procedures.—*Medical Society Bulletin*, Lancaster City and County Medical Society, January, 1966.

No Problem Here

A California medical authority recently deplored the fact that too many physicians are practicing out-of-date medicine.

That may be true in California but, happily, all the evidence in this sector of the nation is to the contrary.

Here in Lancaster there are continuing programs designed to keep local physicians abreast of all medical advances. There are study sessions, discussions, seminars. They are held locally and regionally and they have the benefit of the best in technical expertise and academic know-how.

The County Medical Society holds annual sessions on diverse disciplines and specialties. Currently a series of seminars, originating in Philadelphia and brought via closed radio circuit to the auditorium at Lancaster General Hospital, is giving local physicians further opportunity to get the latest information in medicine. Another series of postgraduate medical seminars has been set up by the General in cooperation with the Temple University Medical Center. Topical issues are discussed by professors of international renown.

Seminars without active participation, however, would render them worthless.

A physician friend who is in a position to know says this is no problem locally. All of the many sessions available for physicians to keep up to date in the practice of his profession are always well attended.

Do doctors keep up?

In Lancaster the answer must be "yes."—*Lancaster Sunday News*, January 23, 1966.

- Throughout its history, the American Medical Association has had twenty-three presidents who received their medical education at the University of Pennsylvania School of Medicine including the first, Nathaniel Chapman, and the current president, James Z. Appel, M.D., of Lancaster.

Night Leg Cramps... Frequent Bedfellow in Diabetes, Arthritis, and Peripheral Vascular Disorders*

*"Nocturnal cramps occurring in the calf muscles and small muscles of the feet have been encountered in a significant number of diabetic patients."[1]

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Nathaniel Chapman, M.D.

This noted Philadelphian reached the peak of his career as the first President of the AMA

IRWIN RICHMAN, Ph.D.
Harrisburg, Pennsylvania

DOCTOR CHAPMAN

When the first convention of the American Medical Association met in Baltimore on May 2, 1848, its keynote speaker was the society's president, elderly Nathaniel Chapman, M.D. Steadying himself with his gold-headed cane—the nineteenth century physician's ultimate status symbol—Chapman lamented that

"The profession to which we belong —once venerated on account of its antiquity, its varied and profound science, its elegant literature, its polite accomplishments, its virtues—has become corrupt and degenerate, to the forfeiture of its social position . . ."

What had caused this decay? To Chapman the answer was simple: Physicians were spending too much time in the laboratories, and were turning their backs on the age-old verities.

Nathaniel Chapman—who in his youth had been a leader of medical thought—was now, in 1848, an anachronism, unwilling to accept the findings of modern medicine. He had even subsidized experiments designed to disprove the recently-discovered fact that medical substances could be absorbed into the blood. Paradoxically, he was respected and revered as a ceremonial leader, but considered quaint as a physician.

To the American medical profession at the threshold of one of the greatest periods of change in its history, Chapman was a reassuring symbol of stability in a changing world. For this reason he had been chosen the American Medical Association's first president at its organizational meeting in Philadelphia in 1847. With a highly respected but neutral president, vigorous young men like Nathan Smith Davis of New York and Isaac Hays of Philadelphia —the real founders of the AMA— could work quietly behind the scenes to strengthen the still-frail society.

Born into Virginia's plantation aristocracy in 1780, Nathaniel Chapman grew up on an estate on the banks of the Potomac River as a neighbor of George Washington. At age sixteen—probably influenced by his physician-uncle, John Hunter—Nathaniel decided to make medicine his career; following the custom of the day, he began his studies under the preceptorate of two local physicians.

MEDICAL HISTORY—The painting (directly above), by Robert Thom, is one of the Parke, Davis & Company History of Medicine series (© 1961, Parke, Davis & Company), and depicts the first meeting of the American Medical Association in the hall of the Academy of Natural Sciences, Philadelphia, on May 5, 1847. It was at this session that Nathaniel Chapman of Philadelphia, with his eyeglasses characteristically pushed over his forehead, was elected the organization's first president. The G. F. Phillips portrait (upper right) shows Dr. Chapman in earlier years. It was made available to Pennsylvania Medicine by Mrs. Ella B. Wade, curator of the Mutter Museum, College of Physicians of Philadelphia.

A year later, in 1797, Chapman went to Philadelphia and registered at the medical school of the University of Pennsylvania. Simultaneously, he became a private student of Dr. Benjamin Rush, "the American Medical Philosopher." In four years he received his M.D., with a Rush-inspired thesis, *An Essay on the Canine State of Fever,* an attempt to prove that hydrophobia was not a unique disease, but merely another phase of the great universal ailment that could be cured by Rush's prescription of calomel and bleeding.

The twenty-one-year-old physician spent the next three years in London and Edinburgh, completing his medical education under the tutelage of the distinguished teachers, Abernethey and Murray. Returning to America in 1804, Chapman decided to settle permanently in Philadelphia, "the Athens of America."

A gentleman of impeccable social standing, he was welcomed into Philadelphia society, became a manager of its venerable Assembly Ball, and served as physician to the elite First Troop of Philadelphia City Cavalry. He established a fashionable practice, mingled with young Federalist intellectuals, and even edited a five-volume compendium of British oratory.

In 1808, he solidified his social position by marrying Rebecca Cornell Biddle of *the* Philadelphia Biddles. Of the six children born to the Chapmans, three survived to maturity. A grandson, Henry Cadwalader Chapman, became famed as a researcher and teacher at the Jefferson Medical College.

Characterized as a "prince of good-fellows," Nathaniel Chapman was celebrated for his charm and wit. But there was another side to his nature: he was also famed as a medical combatant. He feuded notoriously with Drs. Benjamin Rush, Robert Hare, and Robley Dunglison, and he even threatened to "blow the brains out of" still another physician, Grenville Sharpe Pattison.

Chapman found satisfaction in private practice, but he especially longed to teach at his alma mater, Philadelphia's only medical school. Because of his unfortunate feud with Benjamin Rush, however, he was barred from that institution until the elder physician's death in 1813. Then Chapman, who had been carefully "cultivating" other faculty members, was elected professor of materia medica. Three years later, at age thirty-six, he attained his ultimate professional goal—election to the school's Chair of the Theory and Practice of Medicine, Rush's chair, and perhaps the most influential medical position in America at that time.

In addition to teaching and practicing medicine, Chapman wrote and edited medical works. His most important book, the two-volume *Discourse on the Elements of Therapeutics and Materia Medica,* was first printed in 1817 and 1818. But perhaps Chapman's most important contribution to medical literature was the establishment, in 1820, of the *Philadelphia Journal of the Medical and Physical Sciences* which still exists today as the *American Journal of the Medical Sciences.*

In the late 1840's, Chapman's health began to fail; the presidency of the AMA was the last important organizational office he held. He tied up his professional affairs, published his medical lectures, and in 1852 retired from his treasured position at the University of Pennsylvania.

A year later, on July 1, 1853, he died at his fashionable Chestnut Street home. Always a staunch patriot, he was, at his wife's direction, buried on the Fourth of July, the birthday of American independence.

Study in Pennsylvania Shows Unemployment Not Important Factor in Suicide

UNEMPLOYMENT HAS NOT BEEN an important factor in the causation of suicide, at least in the past decade, according to a study for the years 1954 to 1961 in thirteen principal labor market areas of Pennsylvania. Investigators found that despite wide differences between areas in average unemployment rates, there was no evidence of corresponding variation in suicide rates of either men or women.

The study was reported in the January *Archives of Environmental Health* by Albert E. Bailey, Ph.D., Department of Health of Pennsylvania, and two Harvard University School of Public Health investigators.

In Altoona in 1958, when unemployment was at one of its highest levels, the suicide rate for men age 35 to 64 was at its lowest, the study revealed. Lancaster had its highest suicide rate in 1956, when the percentage of unemployed was at its lowest. In Erie, the percentage of unemployed in 1956-57 was well below the eight-year average, but the suicide rate was at its highest.

BETWEEN 1957 AND 1958 the percentage of unemployed persons doubled, or almost doubled, in six of these areas. In two, the suicide rate increased, in three it decreased, and in one it stayed virtually constant.

Although previous studies have shown that the percentage of unemployment is much higher among persons committing suicide than among the related general population, the researchers said they were inclined to believe, on the basis of the Pennsylvania study, that the high proportion of unemployed persons among suicides results from a social or occupational "drift" associated with characteristics of the impending suicide syndrome.

OTHER STUDIES ALSO HAVE SHOWN a marked correlation existing between male suicide and unemployment rates during the past four decades. Said the researchers: "It may be that this correlation results from correlation of both variables with one or more of the many other social variables that fluctuate in response to economic circumstances.

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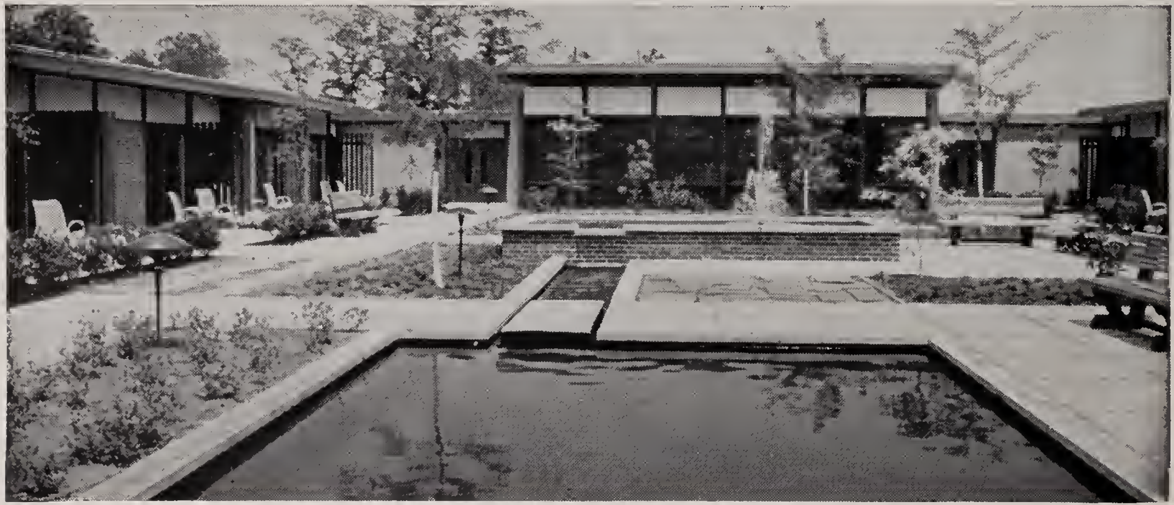
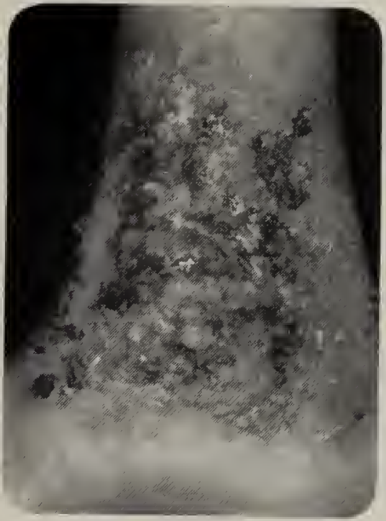
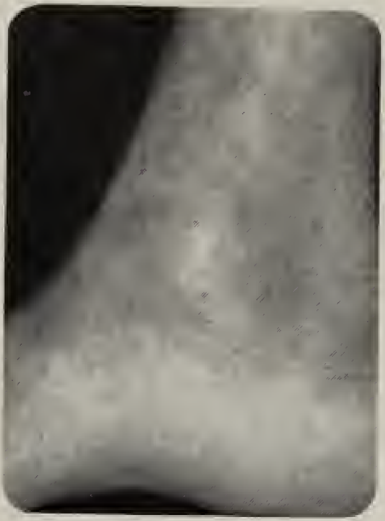


eczema: scourge of childhood



R. R., Age 11—Before treatment— atopic eczema of long standing



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dministration and Dosage: Apply sparingly to the affected ea 3 or 4 times daily. Some cases of psoriasis may be more ffectively treated if the 0.1% Cream or Ointment is applied nder an occlusive dressing.

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ecautions and Side Effects: Do not use in the eyes or in e ear (if drum is perforated). A few individuals react unvorably under certain conditions. If side effects are enuntered, the drug should be discontinued and appropriate measures taken. Use on infected areas should be attended with caution and observation, bearing in mind the potential spreading of infection and the advisability of discontinuing therapy and/or initiating antibacterial measures. Generalized dermatological conditions may require systemic corticosteroid therapy. Steroid therapy, although responsible for remissions of dermatoses, especially of allergic origin cannot be expected to prevent recurrence. The use over extensive body areas, with or without occlusive nonpermeable dressings, may result in systemic absorption. Appropriate precautions should be taken. When occlusive nonpermeable dressings are used, miliaria, folliculitis and pyodermas will sometimes develop. Localized atrophy and striae have been reported with the use of steroids by the occlusive technique. When occlusive nonpermeable dressings are used, the physician should be aware of the hazards of suffocation and flammability. The safety of use on pregnant patients has not been firmly established. Thus, do not use in large amounts or for long periods of time on pregnant patients.

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618-6

Deaths

○ **Espedito S. Capizzi**, Indiana; University of Buffalo, 1933; age, 58; died December 22, 1965. Dr Capizzi had been a committee member in his county medical society. He is survived by his wife, three sons, a sister, and three brothers, one of whom is Calogero Capizzi, M.D.

○ **Vincent J. Cassone**, Glenfield; Jefferson Medical College, 1933; age, 57; died December 14, 1965. Administrator at Dixmont State Hospital at the time of his death, he had held a similar post at the Danville State Hospital. Surviving are his mother, three sisters, and a brother.

○ **Thomas H. Gilland**, Greencastle; Johns Hopkins University School of Medicine, 1911; age, 81; died December 8, 1965. Dr. Gilland was active in civic affairs, and belonged to Masonic groups and to the American Legion. His survivors include his wife and two sisters.

○ **John W. Harmeier**, Pittsburgh; University of Pittsburgh School of Medicine, 1928; age, 61; died December 6, 1965. For three years an instructor at his medical alma mater, Dr. Harmeier was also on the senior staff of West Penn Hospital. He belonged to several professional medical organizations, including the British Royal Society of Medicine. His wife, two sisters, and a brother survive.

○ **Thomas G. Killeen**, Scranton; Medico-Chirurgical College, 1910; age, 81; died December 22, 1965. Dr. Killeen was a staff member at several hospitals, and had served as surgeon for the former Ontario and Western Railroad Company. He belonged to the International College of Surgeons. Long active in the Lackawanna County Medical Society, he served as its president in 1938. He participated in civic affairs, and was in 1949 appointed by the then Gov. James H. Duff to membership on the Scranton Registration Commission. Among his survivors are his wife and four daughters.

○ **David E. Lewis**, Knoxville; University of Michigan School of Medicine, 1929; age, 65; died December 21, 1965. A committee member in his county medical society, Dr. Lewis had served as a PMS District Censor in 1963-64. His late brother, J. D. Lewis, M.D., had been director of public health in Scranton. Dr. David Lewis is survived by his wife and a brother.

○ **David R. MacCarroll**, Atlantic City (formerly of Philadelphia); Jefferson Medical College, 1901; age, 90; died December 2, 1965. Dr. MacCarroll, who had had obstetricogynecological teaching appointments at his medical alma mater and its hospital, was also a staff member at several other hospitals in and near Philadelphia. He had been active in his county medical society, twice serving as a delegate to PMS Annual Sessions; he was a member of several other medical organizations, and of Masonic groups. There are no known survivors.

○ **Dwight C. Martin**, Lititz; Medico-Chirurgical College, 1903; age, 88; died December 3, 1965. After practicing in Lititz for forty-seven years, Dr. Martin entered semiretirement seven years ago. He belonged to Masonic organizations. His survivors include his wife and one daughter.

○ **Morris M. Maser**, California; University of Pennsylvania School of Medicine, 1930; age, 60; died December 18, 1965. Dr. Maser was formerly a Philadelphia police surgeon. A member of several medical organizations, he had been on the staffs of hospitals in Philadelphia and other state communities. His wife and two sons survive.

○ **John R. Maxwell**, Leechburg; University of Pennsylvania School of Medicine, 1901; age, 87; died December 12, 1965. Dr. Maxwell, a former president of the Lackawanna County Medical Society, was dean of the staff of Washington Hospital when it opened in 1927, after long staff service at the previous hospital by the same name. He was physician to several industrial firms during his career, serving the Jessop Steel Company for thirty-five years. He is survived by two daughters and two sons, one of whom is James D. Maxwell, M.D.

○ **Richard G. McManus**, Pittsburgh; Downstate Medical Center, State University of New York, 1944; age, 46; died December 26, 1965. Director of Western Pennsylvania Hospital's department of pathology, Dr. McManus had been a clinical associate professor of pathology in the University of Pittsburgh School of Medicine. He belonged to many professional medical organizations, and had written and spoken extensively in his field. Among his survivors are his wife, three daughters, and four sons.

○ **John S. Monahan**, Shenandoah; University of Pennsylvania School of Medicine, 1911; age, 78; died December 28, 1965. The Schuylkill County Medical Society, of which he was an active member, honored him a few years ago for his half-century of service to medicine. He had been physician to the Reading Company and to the Pennsylvania and Reading Coal and Iron Company. Survivors include his wife and four daughters.

○ **George W. Norris**, Philadelphia; University of Pennsylvania School of Medicine, 1899; age, 90; died December 11, 1965. Dr. Norris was a Fellow of the Philadelphia College of Physicians, and a member of the Philadelphia Club. For more than fifty years he was a trustee of the Green Tree Insurance Company. He wrote two books, *Blood Pressure*, and *Diseases of the Chest and the Principles of Physical Diagnosis*. Early in his career, he was a professor of clinical medicine at his medical alma mater; he also was a staff member at the University of Pennsylvania Hospital. His wive survives.

○ **Alfred A. Pachel**, Pittsburgh; University of Pittsburgh, 1924; age, 65; died December 15, 1965. Dr. Pachel is survived by his wife and a daughter.

○ **Paul H. Parker**, Jenkintown; University of Pennsylvania School of Medicine, 1924; age, 73; died November 30, 1965. In 1930, Dr. Parker inaugurated cardiovascular service at Abington Memorial Hospital, and for many years he was a member of the hospital's executive board. He was also a member of the board of governors of the Heart Association of Southeastern Pennsylvania, and belonged to Masonic orders. He is survived by his wife, two daughters, a son, and a brother.

○ **George W. Ramsey**, Amity; University of Pittsburgh School of Medicine, 1909; age, 86; died December 8, 1965. From 1921 to 1953, Dr. Ramsey headed the pathology laboratories which he had established at Washington Hospital; he also established and operated a pathology laboratory in Hillsview Clinic. A member of the Washington County Board of Health for many years, Dr. Ramsey held memberships in many organizations, and had served his county medical society as president in 1938. His wife, two sons, and two half-brothers survive.

○ **Walter R. Rentschler**, Ringtown; University of Pennsylvania School of Medicine, 1896 (diploma was not granted until he became 21, even though he qualified a year earlier); age, 91; died November 25, 1965. A surgeon for the Reading Railroad, Catawissa Branch, Dr. Rentschler had served as president of Ringtown's Board of Health, and had helped organize the Ringtown Fire Company. He was a member of the community's school board for many years, as well as a director of the Ringtown First National Bank. In November, 1958, he was honored by the Shenandoah Medical Society for outstanding service in his profession. Among his survivors are his wife, three daughters, two sons—one of whom is Henry D. Rentschler, M.D.—and a brother.

De Vere Ritchie, Orlando, Florida (formerly of Harrisburg); Jefferson Medical College, 1924; age, 69; died December 7, 1965. Dr. Ritchie had formerly belonged to the medical societies of Tioga, Clearfield, and Dauphin Counties. A daughter and a son survive.

○ **Jeremiah J. Sullivan**, Lancaster; University of Pennsylvania School of Medicine, 1921; age, 69; died December 8, 1965. Dr. Sullivan had been an instructor in obstetrics in St. Joseph's Hospital School of Nursing, where he was a medical-staff member; he also served on the staff of Lancaster General Hospital. He belonged to several honorary, professional, and fraternal organizations. His survivors include his wife, a daughter, two sons, a sister, and four brothers.

○ **Stoughton R. Vogel**, Philadelphia; Temple University School of Medicine, 1935; age, 58; died January 1, 1966. Dr. Vogel was director of medicine at Episcopal Hospital and chief professor of medicine at the Temple University School of Medicine. He was a Fellow of the Philadelphia College of Physicians and the American College of Physicians, and a member of the American Geriatric Society, the American Trudeau Society, and the American Heart Association. He is survived by two sisters.

○ **Charles C. Wolferth**, Philadelphia; University of Pennsylvania School of Medicine, 1912; age, 78; died December 26, 1965. A noted cardiologist, Dr. Wolferth wrote more than one hundred articles on his specialty, and founded the Edward B. Robinette Foundation for the Study and Treatment of Circulatory Diseases (associated with the university). He was emeritus professor of medicine there. Among his survivors are his wife, two daughters, and a son, Charles C. Wolferth, Jr., M.D.

○ **Alfred Wascolonis**, Tunkhannock; University of Pennsylvania School of Medicine, 1932; age, 61; died December 18, 1965, in a fire at his home. Dr. Wascolonis had served as resident physician-surgeon and pathologist at the White Haven Sanatorium, and as assistant surgeon at the Connecticut State Sanatorium. Surviving are his wife, three sisters, and a brother.

○ **M. Segar Welham**, Philadelphia; Temple University School of Medicine, 1911; age, 89; died December 12, 1965. Dr. Welham was a staff member at St. Agnes, Methodist, and Wills Eye Hospitals. He is survived by his wife, a daughter, and three sons, one of whom is also an M.D.—Rear Admiral Walter C. Welham, fleet surgeon and staff commander-in-chief of the Pacific Fleet.

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American Cancer Society's 1966 Scientific Session

MAY 11, 1966 • St. FRANCIS HOTEL • SAN FRANCISCO, CALIFORNIA

MORNING SESSION • 9:00 a.m. – 1:00 p.m.

INTRODUCTION

LEONARD W. LARSON, M.D., *President, American Cancer Society*

LEWIS W. GUISS, M.D., *University of Southern California School of Medicine, Los Angeles, California. Chairman, Program Committee*

UTERINE CANCER

Chairman

I. L. TILDEN, M.D., *Straub Clinic, Honolulu, Hawaii*

The Present Status of Cytology in Uterine Cancer

LEOPOLD G. KOSS, M.D., *Memorial Hospital for Cancer and Allied Diseases, New York, New York*

The Optimum Management of a Patient with a Positive Cervical Cytology Report

TOMMY N. EVANS, M.D., *Wayne State University School of Medicine, Detroit, Michigan*

COLON AND RECTAL CANCER

Chairman

JOHN G. WALSH, M.D., *Mercy Hospital, Sacramento, California*

Current Procedures in the Detection and Diagnosis of Colon and Rectal Cancer

H. MARVIN POLLARD, M.D., *The University of Michigan Medical Center, Ann Arbor, Michigan*

Modern Treatment of Colon and Rectal Cancer

WARREN H. COLE, M.D., *University of Illinois College of Medicine, Chicago, Illinois*

The Radiological Detection of Cancer and Polyps of the Colon and Rectum

WENDELL G. SCOTT, M.D., *Washington University School of Medicine, St. Louis, Missouri*

LUNG CANCER

Chairman

SOL R. BAKER, M.D., *University of California School of Medicine, Los Angeles, California*

The Control of Cigarette Smoking in the U.S.A.

THE HONORABLE MAURINE B. NEUBERGER, *United States Senate, Washington, D. C.*

The Early Diagnosis of Lung Cancer

THOMAS CARLILE, M.D., *The Mason Clinic, Seattle, Washington*

BREAST CANCER

Chairman

JOHN M. DENNIS, M.D., *University of Maryland School of Medicine, Baltimore, Maryland*

Advances in the Early Diagnosis of Breast Cancer

THOMAS W. BOTSFORD, M.D., *Harvard Medical School, Boston, Massachusetts*

The Breast Cancer Treatment Controversy

ROBERT C. HICKEY, M.D., *University of Wisconsin Medical Center, Madison, Wisconsin*

AFTERNOON SESSION • 2:00 p.m. – 4:30 p.m.

ORAL CANCER

Chairman

B. L. ARONOFF, M.D., *The University of Texas Southwestern Medical School, Dallas, Texas*

Oral Lesions of Neoplastic Significance and Oral Cancer

SOL SILVERMAN, JR., D.D.S., *University of California School of Dentistry, San Francisco, California*

Management of Oropharyngeal Cancer

ARTHUR G. JAMES, M.D., *Ohio State University Medical Center, Columbus, Ohio*

SKIN CANCER

Chairman

GLENN H. LEAK, M.D., *University of Buffalo School of Medicine, Buffalo, New York*

Early Recognition and Diagnosis of Skin Cancer

HERBERT L. TRAENKLE, M.D., *University of Buffalo School of Medicine, Buffalo, New York*

The Treatment of Skin Cancer

RICHARD H. JESSE, M.D., *M.D. Anderson Hospital and Tumor Institute, Houston, Texas*

SPECIAL ADDRESS

Premises and Prospects in Cancer Research

PAUL WEISS, Ph.D., *The University of Texas Graduate School of Biomedical Sciences, Houston, Texas*

SESSIONS ARE OPEN TO ALL MEMBERS OF THE MEDICAL AND DENTAL PROFESSIONS AND STUDENTS. No advance registration or registration fee. Inquiries concerning this program should be addressed to: Director, Professional Education, American Cancer Society, Inc., 219 E. 42nd Street, New York, N.Y. 10017

Pennsylvania Cancer Forum Page—presented cooperatively by the Commission on Cancer of the Pennsylvania Medical Society, the Pennsylvania and Philadelphia Divisions of the American Cancer Society, and the Cancer Control Section, Pennsylvania Department of Health.

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EDITORIALS

Pennsylvania Medicine – A Better Journal

All through mankind's history, change has been constant—much if not most of it for the better. But never has the change been so general nor so rapid as in our time.

Man must now make the best possible use of his resources by suitably altering his orientation toward his goals, and by revising the means and methods he uses to achieve them. This ability to adapt to environment, and to adjust to change, is humanity's secret of success.

We on the staff of your state medical journal have been revamping the publication, to make it a more effective agent for communication among the many physicians of the Pennsylvania Medical Society and related organizations.

In this issue, these changes reach a peak, revealing a boldness sure to elicit reactions from conservative and liberal readers alike. We welcome these evaluations and will weigh them as guides to our further ventures with the journal. We have even gone so far as to give our time-honored "voice" a new name: Pennsylvania Medicine.

All current and future changes have just one purpose: to make our publication a better *house organ* of your state medical society, and a more valuable instrument for medical service.

Our thesis is simple: to produce an organ of communication which can link all doctors in our commonwealth into a body capable of freely exchanging thoughts and opinions; this aim is so worthwhile and so vital that a moment's reflection will enlist your support in the effort to achieve it.

All physicians, however varied their opinions and attitudes, need a medium for exchanging expressions of these points of view. In no other way can we be unified, professionally, toward constantly improving the care we provide our patients. In no other way can each of us maintain his individuality—while recognizing his fellow-practitioners' merits and contributions—than by maintaining, together with them, a steady flow of communication.

We aspire to a better intercommunications job, and we enlist your support. Share with us your ideas and suggestions for a steady upgrading of the content and comment in Pennsylvania Medicine.

● **Opinions expressed in contributions to PENNSYLVANIA MEDICINE are those of the writers, and do not necessarily reflect the views of the Pennsylvania Medical Society.**

And a Better One for Your Wife, Too

Renewed, revitalized, and renamed, the official publication of the Woman's Auxiliary to the American Medical Association deserves appreciative appraisal by Pennsylvania physicians—not only on its merits, but because its editor is a fellow-Pennsylvanian, Mrs. John Wagner, Clarks Summit.

Issue number one of *md's wife* interests medical doctors not merely because it lets them know what the ladies are doing, but also because with other publications of the Auxiliary, this fine magazine is an important communications medium helping to unite medically-oriented citizens. There is no question as to the need for such unity, and surely our own ladies have the most valid reason to join us in our efforts, and the greatest likelihood of success in fostering our concerns.

We can think of no greater contribution to health care than that of an instrument designed to unite into an effective whole the providers of medical care, and to promote the most efficient use of our resources for the benefit of our ailing citizens—through improved diagnosis and more effective therapy.

We have many reasons for saluting Mrs. Wagner and the excellent new publication she edits. We anticipate, from *md's wife,* impressive contributions to our profession and to the whole health field.

Recommended Reading

Few contributions to our medical literature deserve the term *belles lettres,* but literary satisfaction is not the usual goal of those who read medical journals. Nor do we anticipate, when we read such material, the excitement of suspense as to the outcome of an event. Nevertheless, many and varied literary gems can be found in this unlikely setting.

Traumatic Pseudocoarctation of the Aorta (page 29 of this issue) is one such gem. Although we do not term it a medical classic, we are impressed with the elements of suspense and excitement inherent in the case. A young man busy at his usual daily work narrowly escaped death, and for some time thereafter his life was in jeopardy. The account implicitly indicates the demanding labors and the impressive skills of the physician-authors and their assistants. One can also assess the caliber of the medical organization supporting this team effort.

None of these factors appears on the surface. Far from aiming to turn out a hair-raising thriller, the authors believed only that they were adding to the literature another sober account of an accident, its effects, and the treatment of those effects.

After the patient's compression injury in a stacking machine, the threat to his life was more than momentary. The sword suspended above Damocles was no more dramatic an imminent danger than the high pressure of blood against this patient's lacerated aortic wall. A long, difficult, stressful operation ensued, and we can picture the tense scene, the able but concerned surgeons and their colleagues, the agonizing necessity for the utmost in teamwork and technical skill. But after all the tension and suspense, "the postoperative course was uneventful," and the outcome satisfactory.

We commend this case report to our readers not only as a useful scientific contribution to medical practice, but also as a good piece of medical writing.

The *Last* Place One Should Contract Infection

"I may not always be right, but I'm never wrong," was a pungent aphorism of the late Dr. George Hawk. Too often, members of our profession cite only the latter phrase, to excuse gross breaks in medical or surgical asepsis. Infections in hospitalized patient's clean wounds are still too common; although each infection represents a fault of the patient's own immune processes, each must involve a deposition of viable pathogenic microorganisms from some endogenous or exogenous source.

Almost every one of the literally thousands of publications carrying articles on transmission of infection, refine the epidemiologic principles involved to a single fault in the aseptic procedure. Each author favors a single transmission route, almost to the exclusion of the rest. Yet each serious student must admit that not one, but probably many paths lead to deposition of microorganisms in the susceptible target zone. If we are to control all possible sources of bacterial contamination, we must proceed multidirectionally, setting up roadblocks for each conceivable source.

We may in good faith believe that all surgical infections are due to holes in rubber gloves. But we must protect the wound from: local skin contamination, air-contamination arising from dirty shoes, contamination from nasopharynges due to inadequate masking, and perineal fallout caused by improper suiting and lax standards of cleanliness. Even the hygienic shower has been criticized as apparently creating additional bacteria-laden dermal scurf. This effect, too, must be properly countered.

We may all believe that we are adequately protecting our patients when we carry out what we consider all-important aseptic measures. We are "right" in taking these precautions, but we must not relax in that knowledge. We must admit, as George Hawk did, that we are not *always* right, and that all possible contaminating entities must be controlled. And unlike Dr. Hawk, we should lay no claim to never being wrong—especially as to our attitudes and techniques in relation to hospital asepsis.

William C. Beck, M.D.,
Sayre.

Not Only for Murder

Classically, the coroner or medical examiner is thought of as the man in charge of the suddenly dead—the sensationally murdered. In the more flattering fiction, he is the astute detector of the obscure homicide—the scientist with test tubes and microscope. Actually, a coroner in Pennsylvania is often a semiretired physician, a funeral director, or a well-intentioned, semiskilled, vote-getting workman. When confronted with a scene of violence, he calls in the police and signs the necessary papers and certificates in a manner satisfactory to the law enforcement officers. No laboratory does he use. His mortuary, all too often, is a funeral parlor or a hospital autopsy room suitable for gross dissection alone.

Yet murder constitutes only a small part of a coroner's work-load. He reviews about 20 percent of deaths from all causes in Pennsylvania. Far more than half of these are sudden or unattended natural deaths. In 1964 in Pennsylvania, there were 123,648 deaths from all causes. Coroners probably certified more than 24,000 deaths, of which more than 6,668 were violent, but only 403 were homicides. (*Natality and Mortality Statistics, Annual Report, 1964,* Department of Health, commonwealth of Pennsylvania.) Very little useful feedback of information reaches the medical community in regard to this large segment of Pennsylvania mortality.

An article on page 54 of this issue of Pennsylvania Medicine, written by a medical student, deals with fatalities from ectopic pregnancy, and is an example of thousands of studies which could be made in a properly-organized medical examiner's or coroner's office. The article is not concerned with murder, but with obstetrics and public health. Each year in the Philadelphia medical examiner's office, an average of four medical students complete other studies. varying from the socioeconomics of Sterno-drinking to suicide among physicians.

The Pennsylvania Medical Society is urging an upgrading of the antiquated concept of the coroner's office. In Allegheny County, an energetic and able physician (far from retirement) has replaced the politically-oriented lay coroner. In a few other counties in the most recent election, voters made similar improvements. But only when a statewide medical examiner's office has been set up and is functioning will the investigations of sudden deaths yield important, reliable medical data. Medical examiners examine more than murder.

Joseph W. Spelman, M.D.,
Medical Examiner,
Philadelphia.

Health Dollar Share Down

The relative share of the health dollar spent for the services of practitioners in private practice has dropped from 32 cents in 1950 to 29 cents in 1964, according to the Social Security Administration.

The share spent for health supplies —drugs, drug sundries, eyeglasses, and appliances—also dropped, from 17 cents in 1950 to 15 cents 14 years later.

In the same period, hospital care expenditures increased from 30 to 35 percent.

The Social Security Administration noted "a considerable shift in the method of payment for personal health services, from direct out-of-pocket payments to third-party payments.

Death and Dying

"We appear to agree that the fact he may die should be part of the awareness of the patient faced by death as well as the awareness of those who want to help him.

"Awareness on the part of the patient that he is dying may be psychologically helpful, rather than harmful, if it is a part of—or leads to what are believed to be—constructive efforts to prevent death or deal with its problems."—Alvin I. Goldfarb, M.D., New York, moderator of a symposium on death and dying, sponsored by the Group for the Advancement of Psychiatry, Inc.

Mail Call

Dr. Roth Proposes Annual Session—Officers' Conference Merger

In April, 1965, I wrote Dr. [Clarence J.] McCullough [chairman of the State Society Board of Trustees] to express my concern over two matters which vitally affect the State Medical Society. The first was the Officers' Conference itself, and the second was the State Society's annual meeting program. In that letter I called attention to the fact that the Officers' Conference has grown in scope to its present large and expensive state, and that we have simultaneously watched the valiant struggle which has been waged by a series of vigorous committees to stave off the atrophy of the scientific sessions and scientific exhibits which have been part and parcel of the annual convention.

In that letter I tried to point out that in my opinion we were close to the necessity for a reevaluation of "means and ends," and asked the Board that I be given authorization to prepare, and have ready for distribution at the second session of the House of Delegates in Atlantic City, a questionnaire to be answered by delegates in order to determine their feelings. The following questionnaire was prepared and distributed in Atlantic City.

The questions put to the delegates were as follows: First, "Do you favor serious consideration, by the Board of Trustees and the Committee on Convention Program, of the possibility of merging the annual meeting of the House of Delegates with the annual conference of county medical society officers, toward the goal of achieving an administrative, organizational, and socioeconomic meeting of perhaps three days' duration, distinct from the present combination of the House meeting and the postgraduate educational programs?" Second, we asked, "If the answer to the first question was 'yes,' 'would you favor such a meeting in April—May, or September—October?' "

A total of 164 questionnaires were returned and have been reviewed by the staff. The following is a tabulation of the answers to the foregoing questions:

To the question concerning favoring serious consideration of the possibility of merging the annual meeting of the House of Delegates with the annual conference of county medical society officers, 108 answered "Yes" and 56 answered "No." To the question as to the preference of time, 63 favored a meeting held in April and/or May, and 45 favored a meeting in September and/or October. Several of those who answered "Yes" to the first question expressed "no preference," to the second question.

Although this questionnaire is not a clear-cut mandate for a change, the voting is significant, and I believe that the Board should now give serious consideration to combining the meeting of the House of Delegates with the annual conference of county medical society officers. This, of course, cannot be achieved in the year 1966, but I believe that the machinery can, if found desirable, be set in operation to combine these meetings in 1967.

Pursuing the thoughts in my first letter, I continue to have several pertinent observations, now reinforced by the poll, as follows:

1. The annual session of the House of Delegates is a necessity and deserves adequate time for deliberation.

2. The various patterns of meeting format, designed by committees on convention program over the years, have tended to force-feed the scientific programs, but they have not prospered, and the House of Delegates' activities have been pushed into an awkward time-sequence and have somewhat suffered. Preliminary plans for the 1966 meeting have been drawn to permit the scientific programs to follow the promising pattern established in Atlantic City last year, but it is to be noted that this extends the overall session and leaves 2½ days of scientific programs between the first and second sessions of the House of Delegates, making our deliberations a more protracted affair than even the interim session of the AMA House of Delegates.

3. The Officers' Conference has been a pleasant meeting—on the credit side of the ledger—but it has become immensely expensive to the Society, and I doubt that the accomplishments justify the outlay.

4. The possibility exists of combining the Officers' Conference with the House of Delegates meeting, such as the AMA incorporates the meeting of its House together with the conference of presidents and other State Society officers.

5. The scientific sessions might well profit by regionalization—at least to the extent of making them an eastern and a western, two- or three-day, top-bracket, seminar type of meeting, but, in any event, relatively free from administrative, organizational, and socioeconomic competition. If they can't stand on their own, then they should be abandoned.

6. The meeting of the House of Delegates might advantageously be timed for the spring—in preparation for the June session of the AMA House, which is the main business session.

Russell B. Roth, M.D.,
Speaker, PMS
House of Delegates

SPECIAL ANNOUNCEMENT

The entire concept of the PMS convention program has been radically changed this year, with a unique approach planned for the Annual Session in Pittsburgh, October 10-12: a three-day teaching institute involving workshops, clinical rounds, and programmed review courses, all built around the theme "Controversy in the Practice of Medicine." The emphasis will be on personal instruction, using many of the innovations so successfully inaugurated in the Atlantic City convention last year.

Watch future issues of Pennsylvania Medicine and the PMS *Newsletter* for more information regarding program details and preregistration.

MEDICAL SOCIETY NEWS

PMS Sets Seven Regional Meetings on Medicare; All Physicians Invited

Billing procedures, covered services, the role of the physician—all the necessary information about the new medicare program—will be explained in a series of seven regional meetings for physicians during the next two months.

The State Society will stage the sessions, using a panel of experts.

There will be no charge for the meetings, but members of the Society are being asked to send in a notice to indicate interest (see the tear-out postcard in this issue).

All of the conferences will be from 1 to 5 P.M.

The sessions are tentatively planned as follows:

Northwest—Meadville, Holiday Inn, March 23.

West, Southwest—Pittsburgh, Hilton Hotel, March 24.

Southeast—Philadelphia, Marriott Motor Hotel, March 30.

Central, South—Harrisburg, Penn Harris Hotel, March 31.

Central, West—State College, Holiday Inn, April 13.

Northeast—Scranton, Wilkes-Barre, Scranton Holiday Inn, April 17.

East, Central—Allentown, Bethlehem, George Washington Motor Lodge, April 20.

Program experts include representatives of Blue Shield (Part B carrier in Pennsylvania) and of the state department of public welfare, and PMS and American Medical Association officials.

Certain parts of medicare go into effect July 1. The "pennsycare" plan, in operation since January 1, also will be explained.

PMS members may attend any one of the conferences.

✓ MARK YOUR CALENDAR

- 1966 PMS Officers' Conference, Penn Harris Hotel, Harrisburg, April 28-29
- Annual Convention, American Medical Association, Chicago, Illinois, June 26-30
- 1966 PMS Annual Session, Penn-Sheraton Hotel, Pittsburgh, October 9-13
- Annual Tournament, Dinner, Pennsylvania Medical Golfing Association, Oakmont Country Club, Oakmont, October 10

PMS Visitors See Old and 'New' Buildings

Two county secretaries who visited State Society headquarters last month caught a glimpse of the future when they visited the site of the PMS building now under construction.

The secretaries, from Lycoming County, were among the first to see the completed steel framework of the new structure (see photo).

Kenneth L. Cooper, M.D., county secretary, and Theodore S. Larson, Jr., M.D., assistant secretary, visited Harrisburg as part of the county secretary orientation program.

At the new building site, Lester H. Perry, PMS executive director, described construction plans.

The building, located in East Pennsboro Township just west of Harrisburg, is expected to be completed this fall.

In another aspect of their visit, Drs. Cooper and Larson met with other key members of the PMS staff for orientation in the various phases of the State Society operation.

"It has been time very well spent," said Dr. Larson as the end of the one-day visit neared.

Dr. Cooper commented, "We were both really well impressed. I'm only sorry that more doctors cannot have the advantage of such a visit."

With several visitations already completed, the PMS program will be continued to bring more of these key county people to Harrisburg.

MEDICAL SITE—PMS Executive Director Lester H. Perry, left, relates plans for continuing construction on the new Society building in the background to Drs. Kenneth L. Cooper, center, and Theodore S. Larson, Jr., both of Lycoming County Medical Society, during their secretary-orientation visit, part of a PMS program inaugurated last fall.

Significant Actions of the PMS Board

■ The Pennsylvania Medical Society's Board of Trustees, meeting on January 19-20, 1966, took these significant actions. The next meeting of the Board will be held in Harrisburg March 16-17.

Medical Defense

Approved the application of the Montgomery County Medical Society for medical defense.

Committee Budget

Approved a budget request of $3,000 for 1966 from the Committee on Objectives.

Reprint Library

Approved a recommendation of the Special Committee on Archives that the reprint library at the headquarters office be disbanded and that library service for the membership be maintained on a trial basis through the Milton S. Hershey Medical Center.

Microfilming Records

Authorized the microfilming of certain official records and documents of the Society, with the films being stored underground by the Wampum Mine Storage Company.

Part B of Medicare

Agreed to cooperate with commercial insurance carriers as well as with nonprofit insurance carriers, upon request, in developing presentations to administer Part B of the medicare act in Pennsylvania.

Officers' Conference

Approved the recommendation of the Officers' Conference Committee that each component county medical society be permitted to select, in addition to the elected officers, five interested representatives, regardless of any positions held within the county society, to attend the 1966 Officers' Conference.

Committee Membership

Increased the membership of the Commission on Forensic Medicine from five to eight, to provide for a more equitable geographical distribution.

Prevailing Fee Concept

Concurred with the recommendation of the Council on Medical Service that county medical societies be requested to approve the prevailing fee concept in view of the numerous requests received by Blue Shield to provide prevailing fee contracts to subscribers.

Annual Session

Approved the recommendation of the Committee on Convention Program that the 1966 Annual Session be held from Sunday, October 9, through Thursday, October 13. The scientific session for which a registration fee is to be charged to cover speakers, expenses, and instructional luncheon sessions, will begin on Monday and will be directed primarily to the education of the family practice physician.

Rural Health Meeting

Agreed to request the American Medical Association to consider Philadelphia as the site for the 1969 National Rural Health Conference.

Appointments

Named James A. Collins, Jr., M.D., Danville, to fill the vacancy on the Committee on Convention Program resulting from the resignation of C. Wilmer Wirts, M.D., Philadelphia.

Named John B. Montgomery, M.D., Philadelphia, to fill the vacancy on the Committee to Nominate Delegates and Alternates to the American Medical Association created by the resignation of Hugh Robertson, M.D., formerly of Philadelphia.

Appointed Walter H. Burgin, M.D., New Cumberland, to represent the Society as director-at-large on the board of the Pennsylvania Tuberculosis and Health Society.

PaMPAC Directors

Elected the following councilor district representatives to the Board of Directors of PaMPAC: Paul S. Friedman, M.D., First District; W. Benson Harer, M.D., Second District; Richard L. Huber, M.D., Third District; A. Wesley Hildreth, M.D., Fourth District; R. Edward Steele, M.D., Fifth District; Richard B. Magee, M.D., Sixth District; Robert F. Beckley, M.D., Seventh District; F. Gregg Ney, M.D., Eighth District; Herbert L. Hanna, M.D., Ninth District; William A. Barrett, M.D., Tenth District; Edward Martin, Jr., M.D., Eleventh District; Stanley M. Stapinski, M.D., Twelfth District.

AMA, Government Issue Warnings on Krebiozen

Both the American Medical Association and the federal Food and Drug Administration have warned the public against interpreting the acquittal of the promoters of krebiozen as meaning it is effective in the treatment of cancer.

A federal court jury in Chicago found the promoters not guilty of fraud.

"The results of a criminal proceeding should not be interpreted as establishing efficacy of the alleged new drug called krebiozen by its promoters," the AMA said.

"As far back as 1963, krebiozen was proved to be nothing more than mineral oil and creatine, a common laboratory chemical," the FDA said.

"That scientific judgment still stands. The FDA will carry out its responsibility to the public by doing whatever will be necessary to keep krebiozen out of interstate commerce.

"We will do this as a lifesaving activity. Each day [that] a person with treatable cancer relies upon krebiozen is a day that brings him closer to death."

PMS OFFICIALDOM

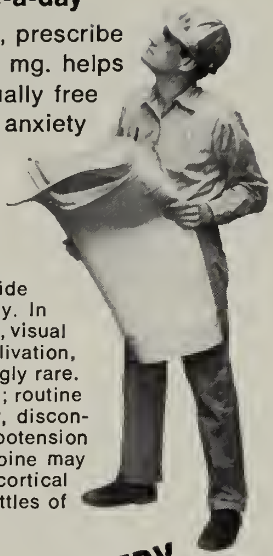
■ FOR A COMPLETE list of State Society officials, AMA delegates, committee, council, and commission members, and staff, see the February issue. A complete list of county society presidents and secretaries can be found in the December, 1965, issue.

Donaldson Awards

Selection committees for the annual PMS Walter F. Donaldson Awards for outstanding medical reporting in newspapers, radio, and television have been organized and will soon begin evaluating entries.

Each of the three recipients will receive an honorarium of $100 and an appropriately inscribed plaque.

Carl B. Lechner, M.D., medical editor of Pennsylvania Medicine, will serve again this year on the award selection committee for newspapers. Also on the committee are Sam Boyle, city editor of the *Philadelphia Bulletin,* and Ray Westafer, general manager of *The Chronicle,* Elizabethtown.



Blueprint for dealing with tension due to stress—Prolixin—once-a-day

For the patient who must be on the job mentally as well as physically, prescribe Prolixin. The prolonged tranquilizing action of as little as one or two mg. helps him cope with tension all day long. Markedly low in toxicity and virtually free from usual sedative effects, Prolixin is effective in controlling both anxiety associated with somatic disorders and anxiety due to environmental or emotional stress. Patient acceptance is good—because Prolixin is low in cost, low in dosage and low in sedative activity. Prescribe Prolixin.

Side Effects, Precautions, Contraindications: As used for anxiety and tension, side effects are unlikely. Reversible extrapyramidal reactions may develop occasionally. In higher doses for psychotic disorders, patients may experience excessive drowsiness, visual blurring, dizziness, insomnia (rare), allergic skin reactions, nausea, anorexia, salivation, edema, perspiration, dry mouth, polyuria, hypotension. Jaundice has been exceedingly rare. Photosensitivity has not been reported. Blood dyscrasias occur with phenothiazines; routine blood counts are recommended. If symptoms of upper respiratory infection occur, discontinue the drug and institute appropriate treatment. Do not use epinephrine for hypotension which may appear in patients on large doses undergoing surgery. Effects of atropine may be potentiated. Do not use with high doses of hypnotics or in patients with subcortical brain damage. Use cautiously in convulsive disorders. **Available:** 1 mg. tablets. Bottles of 50 and 500. For full information, see Product Brief.

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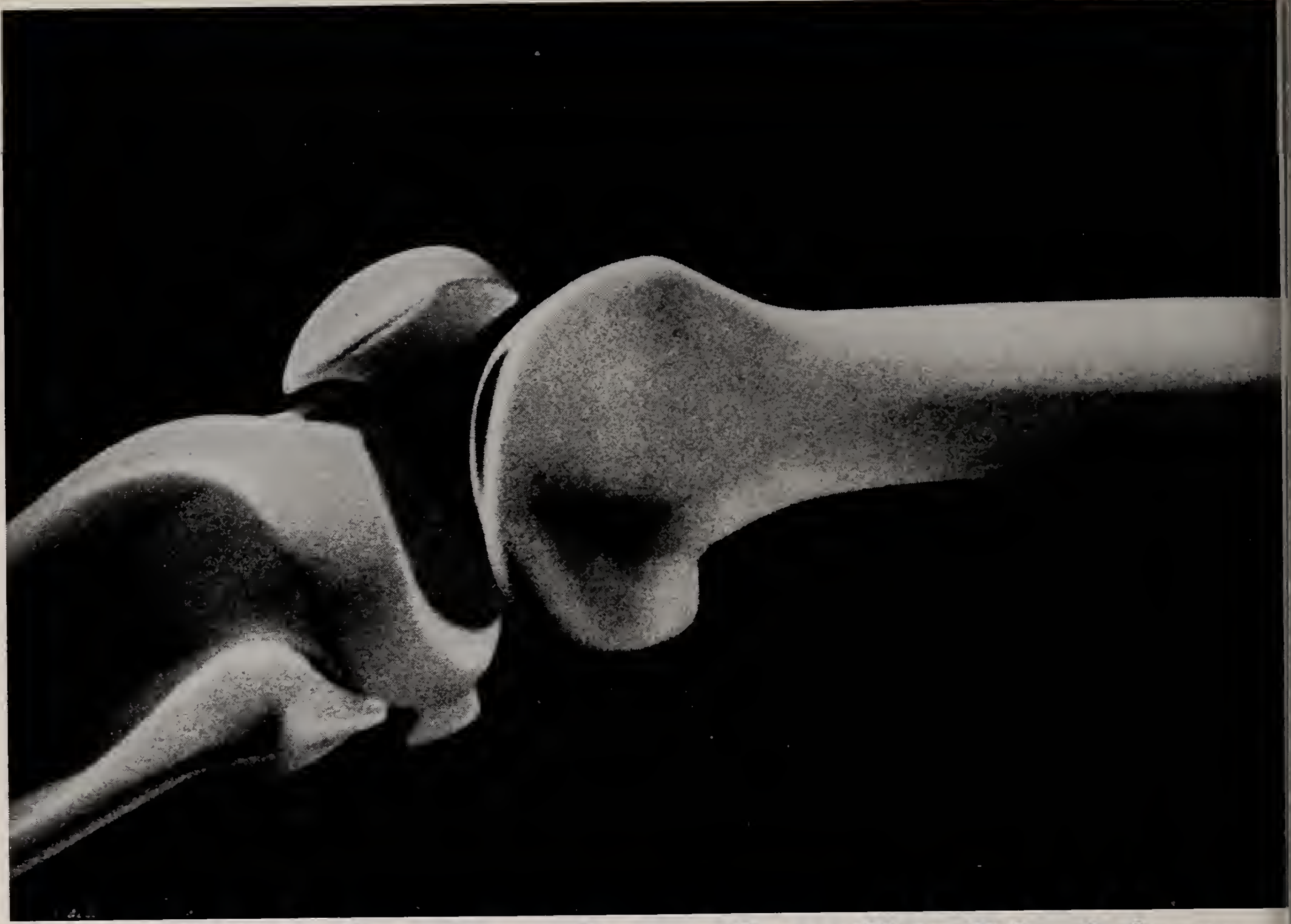

Butazolidin® alka

phenylbutazone	100 mg.
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homatropine methylbromide	1.25 mg.

Usually works within 3 to 4 days in osteoarthritis

The trial period need not exceed 1 week. In contrast, the recommended trial period for indomethacin is *at least 1 month.*

That's why it's logical to start therapy with Butazolidin alka—you'll know quickly whether or not it works. And usually, it will.

A large number of investigators have reported major improvement in about 75% of cases. Some patients have gone into remission. Relief of stiffness and pain may be followed quickly by improved function and resolution of other signs of inflammation. And Butazolidin alka is well tolerated, especially since it contains antacids and an antispasmodic to minimize gastric upset.

Contraindications
Edema, danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile, or when other potent drugs are given concurrently. Large doses are contraindicated in patients with glaucoma.

Precautions
Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should be closely supervised and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools. Make regular blood counts. Use greater care in the elderly.

Warning
If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy.

Adverse Reactions
The most common are nausea, edema and drug rash. Hemodilution may cause moderate fall in red cell count. The drug may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, generalized allergic reaction, stomatitis, salivary gland enlargement, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently

Dosage
The initial daily dosage in adults is 300-600 mg. daily in divided doses. In most instances, 400 mg. daily is sufficient. When improvement occurs, dosage should be decreased to the minimum effective level: this should not exceed 400 mg. daily, and is often achieved with only 100-200 mg. daily.

Also available: Butazolidin®,
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Nutrition Lecture Series Interests Students, Public

The State Society, in cooperation with the American Medical Association and county medical units, is sponsoring clinical nutrition lectures in eighteen colleges and universities during this academic year.

The program's purpose is two-fold: to stimulate undergraduate students to consider careers in health sciences, and to inform audiences of recent developments in the field of nutrition.

Of thirty-six lectures this academic year in the northeast, half were scheduled at schools in Pennsylvania.

Doris A. Howell, M.D., of the department of pediatrics, Woman's Medical College, Philadelphia, has presented a number of the lectures. Others in the series in coming weeks will be given as follows:

S. A. Hashim, M.D., director, Laboratory for Nutrition and Metabolism, Department of Medicine of St. Luke's Hospital and Columbia University, New York: Kutztown State College, March 7, 1 P.M.; East Stroudsburg State College, March 11, 7:30 P.M.; Millersville State College, April 6, 8 P.M.

William Faloon, M.D., professor of medicine, department of medicine, State University of New York: Gannon College, Erie, March 29, 10:45 A.M.; Allegheny College, Meadville, March 30, 4:15 P.M.

The AMA Council on Foods and Nutrition initiated the lecture program last year.

- George A. Rowland, M.D., chairman of the Commission on Rural Health, will represent the State Society at the National Rural Health Conference in Colorado Springs, Colorado, March 19-20, and will speak at a preliminary meeting of state society rural health chairmen.

M.D.-TO-BE—Frank Ziobrowski, M.D., medical student recruitment chairman of Franklin County Medical Society, congratulates Athley Kline, president of the newly chartered Future Physicians Club of Chambersburg Area Senior High School.

Jefferson Dean in Vietnam

William A. Sodeman, M.D., dean of Jefferson Medical College, is in South Vietnam as part of a team studying health programs.

Other members of the group include Drs. Ernest B. Howard, assistant executive vice-president of the American Medical Association, Robert C. Long of Louisville, Kentucky, an AMA trustee, and Walter S. Wiggins of the AMA Council on Medical Education.

New Contributing Editor

Mario N. Fabi, M.D., Scranton, is a newly appointed contributing editor of PENNSYLVANIA MEDICINE, joining some sixteen other medical specialists whose appointments were listed in the January issue.

SESSION '66

■ The 1966 Annual Session of the Pennsylvania Medical Society will be held October 9-13 at the Penn-Sheraton Hotel in Pittsburgh.

Members of State Society Fees Commission Named

Names of members of the 1965-66 Commission on Fees are reported.

Responsible to the Council on Medical Service, the commission formulates fee schedules with such agencies as the Office of Public Assistance, Veterans Administration, and the federal government (on medicare), and handles liaison with the Blue Shield Fee Schedule Committee.

Members of the unit are Drs. William A. Barrett, chairman, (urology); A. Harvey Simmons (allergy); J. Eugene Ruben (anesthesiology); Hugh M. Crumay (dermatology); James H. Allison (general practice); Wendell B. Gordon (internal medicine); George A. Lyon (neurosurgery); Wilson C. Everhart (obstetrics and gynecology); Herbert J. Bacharach (ophthalmology); S. Richard Kaplan (orthopedics); C. Fremont Hall (otolaryngology). F. Wells Brason (pathology); Gordon A. Kagen (pediatrics); Robert G. Stevens (physical medicine and rehabilitation); William L. White (plastic surgery); Norman R. Ingraham (preventive medicine); Peter V. Martin (proctology); H. Keith Fischer (psychiatry); D. Alan Sampson (radiology); H. Taylor Caswell (surgery); Edward M. Kent (thoracic surgery).

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ADMISSION: For full particulars regarding admission requirements write to the Office of the Dean, 1025 Walnut St., Philadelphia, Pa. 19107.

WILLIAM A. SODEMAN, M.D., *Dean and Vice President for Medical Affairs*

Committee to Name Winners of PMS Benjamin Rush Awards; Nominees Listed

The recipients of the 1966 State Society Benjamin Rush Awards will be chosen at a meeting of the selection committee March 16.

Committee members, all on the PMS Board of Trustees and Councilors, are Drs. James A. Biggins, chairman; Joseph J. Leskin, Cyrus B. Slease, H. Thompson Dale, and Park M. Horton.

The individual and the organization named to receive the 1966 statewide awards will be announced, and presentations made, at the Officers' Conference in April.

Winners of the state awards are selected from among local Rush Award recipients nominated by county medical societies.

Nominations for the state individual awards are as follows:

Allegheny, Mrs. Harry P. Clapp; Armstrong, Judge J. Frank Graff and Senator Albert R. Pechan; Cambria, Robert F. Himes; Centre, Nathan H. Krauss; Clearfield, John Albert Dame; Columbia, Louise B. Seronsy, Ph.D.; Lancaster, Martin C. Dellinger and Louis E. Nightengale, D.D.S.

Also, Lehigh, The Rt. Rev. Msgr. Leo Gregory Fink; Luzerne, Herbert N. Oliver, Jr., D.D.S.; Mercer, Robert G. Pennington; Monroe, Sybil (Mrs. Raymond) Michener; Montour, Robert N. Pursel; Northampton, Walter L. Trumbauer; Philadelphia, Mrs. E. Laurence Miller; Washington, Jacob J. Paradise; Westmoreland, Charles William Cunningham.

Nominated for the state award for an organization were:

Allegheny, School Children's Health Fund; Clearfield, Clearfield Broadcasters, Inc.; Lancaster, Lions Club; Lehigh, OPAL Club of Allentown; Lebanon, Good Samaritan Hospital Auxiliary; Mercer, Women's Auxiliary of the Mercer County Crippled Children's Clinic; Monroe, Monroe County Girl Scouts; Philadelphia, Elizabeth Price Martin League 1; Warren, Warren County Lions Club; Westmoreland, North Huntington Township Rescue and Relief Association, Company 8.

Other counties have presented local Rush Awards this year as follows:

Luzerne, Catholic Youth Center of Wilkes-Barre; Lycoming, Mrs. Eleanor Baker and Blood Donors of Lycoming County; Montgomery, Tony Bekas and radio station WNAR, Norristown; Northampton, Mrs. Theresa Onorata and the MORA Club.

Philadelphia's PGI Ready

Hundreds of physicians are expected to attend the Philadelphia County Medical Society's Thirtieth Annual Postgraduate Institute March 22-25 at the Bellevue Stratford Hotel, Philadelphia.

Some forty-four guest speakers are assigned special topics for the sessions, which will have as a theme, "Basic Mechanisms of Disease and Their Clinical Applications."

Topics to be explored include physical examination of the heart, pathogenesis and treatment of inflammatory joint diseases, peripheral vascular disease, current management of diabetes, newer advances in viral disease, advanced renal disease, advances in gynecologic endocrinology, and diseases of the colon.

Donald A. Dupler, M.D., is director and Robert L. Mayock, M.D., associate director.

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An eminent role in medical practice

- Clinicians throughout the world consider meprobamate a therapeutic standard in the management of anxiety and tension.
- The high safety-efficacy ratio of 'Miltown' has been demonstrated by more than a decade of clinical use.

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Indications: 'Miltown' (meprobamate) is effective in relief of anxiety and tension states. Also as adjunctive therapy when anxiety may be a causative or otherwise disturbing factor. Although not a hypnotic, 'Miltown' fosters normal sleep through both its anti-anxiety and muscle-relaxant properties.

Contraindications: Previous allergic or idiosyncratic reactions to meprobamate or meprobamate-containing drugs.

Precautions: Careful supervision of dose and amounts prescribed is advised. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction; withdraw gradually after use for weeks or months at excessive dosage. Abrupt withdrawal may precipitate recurrence of preexisting symptoms, or withdrawal reactions including, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, the dose should be reduced and operation of motor vehicles or machinery or other activity requiring alertness should be avoided if these symptoms are present. Effects of excessive alcohol may possibly be increased by meprobamate. Grand mal seizures may be precipitated in persons suffering from both grand and petit mal. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side effects: Drowsiness may occur and, rarely, ataxia, usually controlled by decreasing the dose. Allergic or idiosyncratic reactions are rare, generally developing after one to four doses. Mild reactions are characterized by an urticarial or erythematous, maculopapular rash. Acute nonthrombocytopenic purpura with peripheral edema and fever, transient leukopenia, and a single case of fatal bullous dermatitis after administration of meprobamate and prednisolone have been reported. More severe and very rare cases of hypersensitivity may produce fever, chills, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, anaphylaxis, stomatitis and proctitis. Treatment should be symptomatic in such cases, and the drug should not be reinstituted. Isolated cases of agranulocytosis, thrombocytopenic purpura, and a single fatal instance of aplastic anemia have been reported, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity has been reported, usually after excessive meprobamate dosage. Suicidal attempts may produce lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

Usual adult dosage: One or two 400 mg. tablets three times daily. Doses above 2400 mg. daily are not recommended.

Supplied: In two strengths: 400 mg. scored tablets and 200 mg. coated tablets.

Before prescribing, consult package circular.

WALLACE LABORATORIES
Cranbury, N.J.

6M-9381

What Social Security Will Do for You

Our mythical Dr. John Doe will receive $123 a month in 1980, but his twin will get $126!

A system of "credits" has a bearing on benefits. If you've always been self-employed, never earning income subject to deductions for Social Security, your credit accumulation did not begin until you made that 1965 payment.

If you've had non-self-employed income, however, since Social Security was initiated in 1935, you've built up some credits which augment those that began to accumulate with your 1965 ante of $259.20. Credits will continue to accumulate, and your payment schedule will escalate until it reaches $504.80 in 1987, after which it will continue at that level for as long as you continue to pay (see Table I).

TABLE I

MAXIMUM CONTRIBUTION RATE FOR SELF-EMPLOYED PERSONS

Year	*Tax Rate*	*Maximum Taxable Net Earnings*	*Social Security Payment*
1965	5.40%	$4,800	$259.20
1966	6.15%	$6,600	$405.90
1967-68	6.40%	$6,600	$432.40
1969-72	7.10%	$6,600	$468.60
1973-75	7.55%	$6,600	$488.30
1976-79	7.60%	$6,600	$491.60
1980-86	7.70%	$6,600	$497.20
1987 on	7.80%	$6,600	$504.80

Table II indicates where you will stand (as of the year you become sixty-five) regarding "fully insured" status. Retirement and survivors' benefit considerations appear in Table III.

Benefits

Now—exactly what can you expect to receive, after you retire? No set of figures applies to all physicians—each individual must confer with his nearest Social Security Administration office to pin down the facts of his own situation.

But suppose we take a mythical John Doe, M.D., born in 1915. He has been exclusively self-employed in medical practice, thus has never accumulated any credits prior to 1965. He retires in 1980, at a monthly benefit of about $123. His wife, who then is sixty-two, receives $61.60 in her own right, bringing their total monthly benefits to about $185.

But during school years, *Joe* Doe, M.D., John's twin brother, earned about $1,000 per year for five years, as an employee, before becoming self-employed in his medical practice. When *he* retires—the same day John does—he begins to receive $126 a month, his sixty-two-year-old wife receiving about $63.

Back to John. He and his wife have a set of triplets born in 1956. If John *dies,* say in 1970, his wife and the three children will receive a $255 lump-sum death benefit, plus $188 monthly until the children are eighteen (or, if in school, twenty-one). After they are twenty-one, Mrs. John Doe will continue to receive about $80 per month.

If *Joe* should die in 1970, his survivors' benefits would be correspondingly higher than those of his twin's family, simply because Joe piled up those prior credits as an employee.

Incidentally, if, after five years' Social Security payments, either John or Joe should become disabled, his *disability* benefits would be the same as the *retirement* benefits he would receive if he could have remained active, and retired at sixty-five.

TABLE II

"FULLY INSURED" STATUS

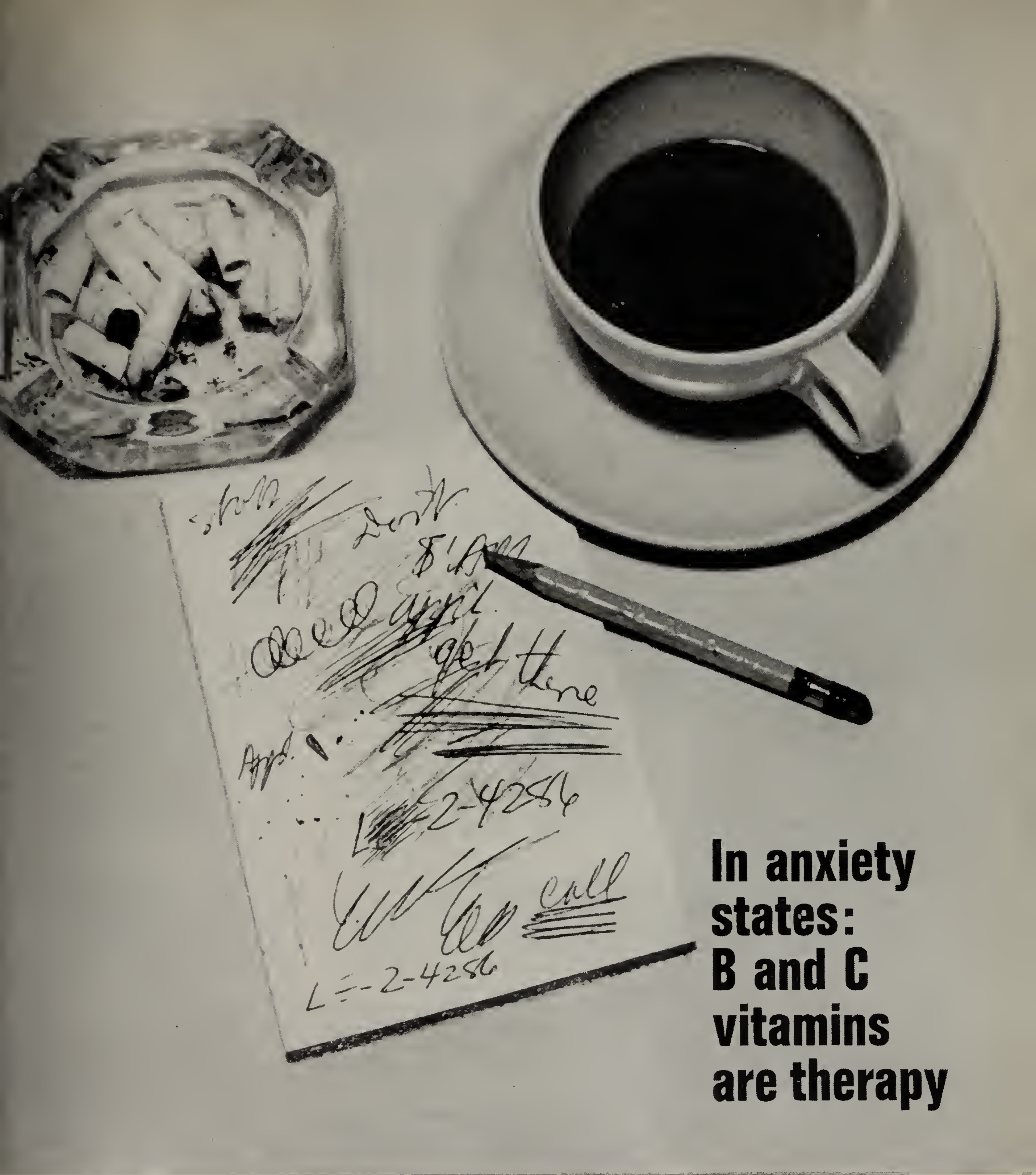
If you become 65 (women, 62), or die, in—	*You will need credit for only this much work*
1957 or earlier	1½ years
1958	1¾
1959	2
1960	2¼
1961	2½
1962	2¾
1963	3
1964	3¼
1965	3½
1966	3¾
1967	4
1968	4¼
1969	4½
1970	4¾
1971	5
1975	6
1979	7
1983	8
1987	9
1991 (or later)	10

See the PMS mid-January *Newsletter* item, *Social Security and the Doctor,* for further details, and for a handy clip-out form to help you ascertain your accumulated credits.

TABLE III

PRINCIPLE TYPES OF PAYMENTS, AND INSURED STATUS NEEDED FOR EACH

Retirement	
Monthly payment to—	*If you are—*
You as a retired worker and your wife and child	Fully *and* currently insured.
Your dependent husband 62 or over	Fully insured.
Survivors	
Monthly payments to your—	*If at death you are—*
Widow 60 or over	Fully insured.
Widow (regardless of age) if caring for your child who is under 18 or disabled and is entitled to benefits	Fully *or* currently insured.
Dependent child	Fully *or* currently insured.
Dependent widower 62 or over	Fully *and* currently insured.
Dependent parent at 62	Fully insured.
Dependent divorced wife (regardless of age) if caring for your child who is under 18 or disabled, and is entitled to benefits	Fully *or* currently insured. Fully *or* currently insured.
Lump-sum death payment	



Stress formula vitamins are an important supportive measure in maintaining the nutritional status of the emotionally disturbed patient. With STRESSCAPS, B and C vitamins are present in therapeutic amounts to meet increased metabolic demands. Patients with anxiety, and many others undergoing physiologic stress, may benefit from vitamin therapy with STRESSCAPS.

STRESSCAPS®

FOR PROFESSIONAL RECOMMENDATION ONLY

Stress Formula Vitamins Lederle

Each capsule contains:

Vitamin B_1 (as Thiamine Mononitrate)	10 mg.
Vitamin B_2 (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B_6 (Pyridoxine HCl)	2 mg.
Vitamin B_{12} Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N.Y.
8241-4

CLASSIFIED ADVERTISEMENTS

ASSOCIATE WANTED

Staff Additions—Four staff additions to southern California group of twenty-four physicians: internist with chest subspecialty, ophthalmologist, otolaryngologist, general practitioner. Partnership possibility after first year. Write ADMINISTRATOR, Gallatin Medical Group, 10720 South Paramount Boulevard, Downey, California 90241.

Physician for General Practice—Full associate; immediate occupancy of office. No initial investment. Rental house available. Central Pennsylvania location; excellent hunting, fishing, boating. Department 427, PENNSYLVANIA MEDICINE.

Associate Wanted—General practitioner, young, to join two general practitioners in Central Pennsylvania. Modern office, good hospital facilities. Start at $12,000. No expenses. Ample time off, two weeks' vacation. Partnership available. Write Department 450, PENNSYLVANIA MEDICINE.

FOR RENT

New Medical Office Building—To be constructed in growing west shore area near Harrisburg; available for lease. Builder will customize interior office space to suit any requirements as to size, layout, and special facilities. Located in a large population growth area with easy access to local hospitals, fine residential areas, excellent schools, Pennsylvania Turnpike, and north-south express routes. Only four miles from Holy Spirit Hospital, Camp Hill. Ideal for several physicians. Inquiries are invited. Details furnished without obligation. Contact RIDGEWAY KNOLLS, P. O. Box 211, Camp Hill, Pa. 17011. Phone (717) 732-1553.

FOR SALE

For Sale—Physician's office, Reading, Pennsylvania. Suburban location, modern design, beautifully landscaped; covered, paved carport, capacity four cars. Office designed for two-man practice. Completely air-conditioned; equipped with executone. Fully furnished, including well-equipped laboratory. Near three general hospitals. Write Department 447, PENNSYLVANIA MEDICINE.

INTERNS, RESIDENTS WANTED

Psychiatric Residencies—Norristown State Hospital; first, second, and third years. Fully approved. Twenty miles from Philadelphia, in semi-rural area near five large medical centers. Salaries start above $7,000, plus partial maintenance and many fringe benefits. For brochure and details, write SUPERINTENDENT, Norristown State Hospital, Norristown, Pa. 19401.

Surgical Residency—Approved 1-2 years; active teaching staff; ECFMG certificate required; annual stipend $4,800, full maintenance. Available January and July, 1966. Write RESIDENT DIRECTOR, St. Joseph Hospital, Hazleton, Pa. 18201.

Three-Year Psychiatric Residency Training—Approved; third year in university-connected psychiatric institute. ECFMG and/or license acceptable in Pennsylvania required. Salary $7,055-$10,432; maintenance arrangements possible. R. L. GATSKI, M.D., Superintendent, State Hospital, Danville, Pa. 17821.

PHYSICIANS WANTED

House Physician—Needed immediately for 270-bed general hospital serving suburban and industrial communities in Pittsburgh metropolitan area. A license in Pennsylvania is required for this position. Salary open. Contact ASSISTANT EXECUTIVE DIRECTOR, Sewickley Valley Hospital, Sewickley, Pa. 15143.

Wanted—House physician for 206-bed general hospital located in a pleasant college community 55 miles from Pittsburgh. Rotate services with another house physician. Pennsylvania license required. An excellent introduction to a community with practice opportunities. Contact WILLIAM PETERS, Administrator, Indiana Hospital, Indiana, Pa. 15701.

Excellent Opportunity—General practitioner needed in Catawissa. Office and records of previous physician (deceased) available. Office offered at reasonable rental. Drugstore in town. Hospital within four miles. Presence of two other physicians in town allows for mutual coverage arrangements. The Keystone Shortway, when completed, will put Catawissa within three hours of New York. Contact HERBERT MAURER, Chamber of Commerce, Catawissa, or PHYSICIAN PLACEMENT SERVICE, Pennsylvania Medical Society, 230 State Street, Harrisburg, Pa. 17105.

Medical Director Wanted—For outpatient rehabilitation center; physiatrist—qualified, or board certified. Must have New York State license. Salary $20,000 and up (depending upon qualifications), plus liberal fringe benefits. Write Department 434, PENNSYLVANIA MEDICINE.

Internist—Board eligible, under 40 years of age, for clinic in Minnesota. Applicant interested in living and rearing his family in a city of 15,000 population with excellent schools and all types of recreation, located 90 miles from the one-million-population metropolitan area of Minneapolis-St. Paul. Time for work, study, and play. Stable seven-man clinic, accredited hospital. Full partnership one year. Salary open. Position may change your life. Write Department 451, PENNSYLVANIA MEDICINE.

Wanted—A psychiatrist and a general physician; beginning salary, $12,510–$20,005, depending on qualifications. Benefits: annual and sick leave, life and hospitalization insurance programs, retirement plan. License (any state) and U.S. citizenship required. Nondiscrimination in employment. Moving expenses will be paid. Apply to CHIEF OF STAFF, Veterans Administration Hospital, Leech Farm Road, Pittsburgh, Pa. 15206.

Wanted—General practitioner or internist for progressive industrial community of 7,000 with an additional 20,000 within 10-mile radius. Open-staff modern hospitals fifteen minutes away. Modern schools; three drugstores; 40-minute drive to Pittsburgh. Community is on the Beaver Valley Expressway. Greater Pittsburgh airport is only a 35-minute drive away, via new bridges on the Ohio River. Presence of three other physicians in town permits mutual coverage arrangements. Contact MIDLAND BOROUGH COUNCIL, Midland, Pa. 15059.

Physicians—Male and female, licensed, for children's camps, July-August. Good salary; free placement. Three hundred fifty member camps. Write DEPARTMENT P, Association Private Camps, 55 West 42nd Street, New York, N. Y. 10036. Phone (212) OX 5-2656.

Anesthesiologist—Associate to board man in medium-sized Philadelphia hospital. Opportunity for training and supervisory experience over full staff of well-qualified anesthetists. New equipment in modern air-conditioned facilities. Good income with minimum call from home. Write Department 444, PENNSYLVANIA MEDICINE.

House Physician—123-bed general hospital. Pennsylvania license necessary. Salary open. Excellent introduction to community with practice opportunities. Contact MADELINE GREGORY, Administrator, Miners Hospital of Northern Cambria, Spangler, Pa. 15775.

Wanted—General practitioner or internist for 20-bed hospital in pleasant, progressive community. Excellent recreational facilities, good schools. Will guarantee $25,000; $50,000 gross possible. Contact BOARD SECRETARY, Colver Hospital, Colver, Pa.

Psychiatrist or Physician—Accredited hospital affiliated with approved general hospital. Approved psychiatric residency program. Pennsylvania license required. Salary $10,954-$19,664; maintenance arrangements possible. R. L. GATSKI, M.D., Superintendent, State Hospital, Danville, Pa. 17821.

Wanted—General practitioner to establish private practice in a community located within five miles of a 207-bed general community hospital. Contact ADMINISTRATOR, Lewistown Hospital, Lewistown, Pa. 17044.

Needed Immediately—Two general practitioners to serve the Grove City area. Contact ADMINISTRATOR, Grove City Hospital, Grove City, Pa. 16127.

Excellent Opportunity—General practitioner needed in McClellandtown, Fayette County, Pennsylvania. Office and records of previous physician (deceased) available. Service area of 20,000. Hospital within six miles. Contact Mrs. George N. Riffle, Box 248, McClellandtown, Pa. 15458.

POSITIONS WANTED

Internist—Age 31, Temple University alumnus, completing residency in internal medicine in Boston; seeking association with established physician or group, Philadelphia or vicinity. Contact JULIUS ELLISON, M.D., 205 Langley Road, Newton Centre, Mass. 02159.

Obstetrician-Gynecologist — Age thirty-three, Catholic, married, board certified, desires association leading to partnership in eastern Pennsylvania. Military obligations fulfilled. Available after July 1, 1966. Write Department 413, PENNSYLVANIA MEDICINE.

Anesthesiologist—Board eligible, age 35, seeks opening Philadelphia area. Fee-for-service group preferred. Write Department 448, PENNSYLVANIA MEDICINE.

Oculist—Desires location or position in Pennsylvania. Certified and FACS. Available immediately. Write Department 449, PENNSYLVANIA MEDICINE.

PRACTICES AVAILABLE

Available—General practice with equipment and combined home-office. Liberal terms. Resort and agricultural area in county seat town of northeastern Pennsylvania. Physician retiring. Open staff hospital. Will introduce. Write Department 441, PENNSYLVANIA MEDICINE.

Excellent General Practice—Immediately available; Pittsburgh South Hills. Eight-room office suitable for multiple practice. Equipment and furnishings all new in past five years. MARIE A. FISCHER, M.D., 2130 Broadway Avenue, Pittsburgh, Pa. 15216. Phone (412) 563-0641.

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RATES—$5.00 per insertion up to 30 words; 20 cents each additional word; 50 cents per insertion for answers sent in care of PENNSYLVANIA MEDICINE. Payable in advance.

COPY DEADLINE—Copy due by first day of month preceding month of publication. Send to PENNSYLVANIA MEDICINE, 230 State Street, Harrisburg, Pennsylvania 17105. The right is reserved to reject or modify copy to conform with publication rules.

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● Every precaution has been taken to insure accuracy in these advertisements and in this index, but there is no guarantee against errors or omissions.

In My Opinion . . .

Charity Of Medicine

Not too long ago, it was disclosed in the daily press, that somebody had been rifling the safe-deposit boxes at a bank. It does not matter that the somebody was the clerk in charge of that department, who had access to the security control. What did disturb one boxholder, a surgeon, was that he lost $25,000 in cash stolen from his box.

In another city, a businessman was the victim of a robbery at his home, and large sums of money and negotiable securities were listed by the investigating police in the loss. There was some insistence by the loser that the accounting of the police was at fault. Nonetheless, subsequent disclosures in court trials, murder of witnesses or supposed conspirators, and implied connection with the entertainment field in a larger city, did not soften the suspicion in the public mind, that the victim of the robbery had been indiscreet at least, by sequestering in his home large sums which ordinarily would be protected by aboveboard banking practices.

More recently, another such instance was reported in the press as occurring in the western part of the state, involving another physician. Hundreds of thousands of dollars in cash and securities were reported to have disappeared from his isolated home, presumably by robbery. It did not help that much of the loot was later discovered not to have left the house and some was reported to have been recovered in a pillowcase from, of all places, a nearby stream of water.

If one does not choose to employ the advantages and protection of trusts, investment funds, and regulation aboveboard banking, one must accept the risks of robbery and official investigation and audit. Perhaps it is better to siphon more of profits and excess earnings into community funds and alumni annual giving. One can honestly wonder how each of the three unfortunate subjects mentioned above was or presently may be identified on the lists of contributors to local welfare, hospital building funds, or university and medical school maintenance and endowment.

Alumni annual giving to universities and medical schools is a comparatively recent development in this nation and has already reached commendable stature. Community and united welfare funds always need the support of physicians, and the medical division of any such drive should show a high percent of giving by doctors of medicine. Our fathers knew less of the science of medicine, but do we know more of the art and charity of medicine?

Lewis T. Buckman, M.D.,
Contributing Editor.

P.R.N.

The other day Pennsylvania Medicine got its usual stack of mail—letters, promotion pieces, news releases. Nothing unusual, or so it seemed.

But there was something out of the ordinary. Tucked away in the pile—looking like any other mimeographed sheet—was a promotion for pornographic films and playing cards.

The material didn't come right out and say "pornographic," but there was no mistaking what was offered.

One of the films (100 feet, black and white, $25; color, $10 more) was, *Two People and a Blanket.* The "French Type" playing cards could be yours for $15 per deck.

Just in case there is any question on the part of the recipient of the ad, the return address on the envelope was libidinously marked, "Special for EXecutives."

Of course, it would be mailed in a "plain, sealed package."

This was a barefaced, bold solicitation—offering filth via the mailbox.

Pennsylvania Medicine necessarily has to be—and wants to be—on many mailing lists, but we hope that "X Sales" certainly believes what it said in its letter, "You may not wish to receive this type of mail."

Let's hope, too, that the Post Office Department has this operation and others like it under surveillance and can bring about, quickly, the ultimate solution—putting them out of business.

—PM Editors

Truly I say to you, as you did it to one of the least of these my brethren, you did it to me.

Matthew 25:40
(Revised Standard Version)

new from Ames
5 basic uro-analytical facts in 30 seconds

Labstix®

BRAND REAGENT STRIPS

...broadest urine screening possible from a single reagent strip

Urine test results with Labstix Reagent Strips can represent significant guides to differential diagnosis or therapy in many conditions. An unexpected "positive" may enable you to detect hidden pathology—long before more recognizable symptoms become evident. Negative results, which permit you to rule out abnormalities in a broad clinical range, can serve as baseline values for reference in future examinations. The 5 colorimetric test areas encompassed on Labstix Reagent Strips are:

pH—values are read numerically in the essential range of pH 5 to pH 9.

Protein—results are read either in the "plus" system or in mg. % in amounts approximating "trace," 30, 100, 300, and over 1000 mg. %.

Glucose—provides a "Yes-or-No" answer for urine "sugar spill."

Ketones—detects ketone bodies in urine—**both** acetoacetic acid and acetone. Reacts with as little as 5 to 10 mg. % of acetoacetic acid.

Occult Blood—specific test for intact red cells, hemoglobin or myoglobin. Results are read as negative, small, moderate or large amounts.

Now a Clear Reagent Strip of Firm Construction

...facilitates handling during testing procedure. Excellent color contrast made possible by the clear plastic strip, together with the clearly defined color charts provided, permits precise, reproducible colorimetric readings in all 5 test areas. A more definitive interpretation of uro-analytical facts is made possible.

Available: Labstix Reagent Strips, bottles of 100 (color charts are supplied with each bottle).

Ames Company, Inc., Elkhart, Indiana AMES

08165

The weight of clinical evidence favors Librium

With Librium (chlordiazepoxide HCl), the weight of a five-year record of efficacy and safety in clinical use is supported by over 630 reports in the medical literature. Its virtually specific antianxiety action normally reduces disturbing emotional complaints promptly without compromising the patient's mental alertness or ability to perform normal functions. Decisive results are often seen in patients who had not improved on previously used psychotropic drugs.

In prescribing: Dosage—Adults: Mild to moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. Geriatric patients: 5 mg b.i.d. to q.i.d.

Side Effects: Side effects, usually dose-related, include drowsiness, ataxia, minor skin rashes, edema, menstrual irregularities, nausea and constipation. When treatment is protracted, blood counts and liver function tests are advisable. Paradoxical reactions may occasionally occur in psychiatric patients. Individual maintenance dosages should be determined.

Precautions: Advise patients against possibly hazardous procedures until maintenance dosage is established. Though compatible with most drugs, use care in combining with other psychotropics, particularly MAO inhibitors or phenothiazines; warn patients of possible combined effects with alcohol. Observe usual precautions in impaired renal or hepatic function, in long-term treatment and in presence of depression or suicidal tendencies. Exercise caution in administering drug to addiction-prone patients or those who might increase dosage; withdrawal symptoms, similar to those seen with barbiturates or meprobamate, can occur upon abrupt cessation after prolonged overdosage. Caution should be exercised in prescribing any therapeutic agent for pregnant patients.

Supplied: Capsules, 5 mg, 10 mg and 25 mg, bottles of 50.

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Division of Hoffmann-La Roche Inc., Nutley, N.J. 07110

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(chlordiazepoxide HCl)

ROCHE

Librium is indicated whenever anxiety is part of the clinical profile, such as in...

APRIL, 1966

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PENNSYLVANIA MEDICINE

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FOLK MEDICINE AS PRACTICED IN PENNSYLVANIA
Powwowers 'Try for' a Wide Range of Physical and Psychic Afflictions – Page 37

ALEXANDER GRAHAM BELL, MEDICAL PIONEER
The versatility of the telephone's inventor led him to discoveries in the field of medicine – Page 60

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926

LATE News HIGHLIGHTS

APRIL, 1966

SERVICE LEAGUE, MONROE COUNTIAN RECEIVE STATE RUSH AWARDS

At the PMS Officers' Conference April 28, Benjamin Rush Awards will be presented to the Elizabeth Price Martin League No. 1, Philadelphia, and to Mrs. Raymond Michener, Buck Hill Falls. In 1965 the league's 25 members gave more than 2,000 hours to community and in-hospital work with the needy; services included providing clothing and other items, transportation to churches, and, in some cases, interment. . . . Mrs. Michener qualified for the individual award by making and repairing costume jewelry and turning over her $15,000 earnings for the treatment of cancer patients.

THREE REGIONAL MEDICARE MEETS ARE STILL IN THE OFFING

With four regional briefing sessions on medicare already held, three remain on the agenda, as follows: from 1 to 5 p.m.—April 3, State College Holiday Inn; April 7, Scranton Holiday Inn; and April 20, Allentown George Washington Motor Lodge. Hundreds of responses have reached PMS headquarters from physicians availing themselves of this service. Refer back to your March PM for the handy tear-out postcard. But even without thus signifying your intention of being present, you are welcome to attend the conference in your area. See page 81 for further details.

NEWS FROM HARRISBURG

Governor William Scranton announces that an Office for the Mentally Retarded (separate from the Office of Mental Health) will be established in the Pennsylvania Department of Public Welfare . . . Ralph E. Dwork, first deputy secretary of health, told a conference in Harrisburg that many general hospitals in the state lack adequately staffed poison-treatment centers . . .

SIGNIFICANT BOARD ACTIONS

At its March meeting, the PMS Board of Trustees and Councilors appointed **Lewis T. Buckman, M.D.**, Luzerne County, to fill a Judicial Council vacancy until the next meeting of the House of Delegates . . . took the official position that administration of state hospitals should be placed within the state health department . . . approved use of the prevailing fee concept in determining reasonable charges under Part B of medicare . . . approved a motion to form appropriate medical review committees in all medical councilor districts . . . approved presentation of a special award to **Edwin O. Daue, M.D.**, of Harrisburg, for checking the medical accuracy of the "Your Health" column over the past fifteen years.

WELCOME WORDS

- The PM staff has received a gratifying number of laudatory letters in regard to the many changes in this publication. The new name, the "cover girl," the radically revised format, and the effort and thought that went into bringing all this into being, have won heartwarming commendations from many readers. Next month the editors will share some of the letters with you.

M.D. NEWS

- Elected president and secretary-treasurer, respectively, of the Pittsburgh Allergy Society, are **Drs. Richard R. Weigler**, Pittsburgh, and **Martin D. Reister**, Wheeling, West Virginia . . . **Roy E. Nicodemus, M.D.**, who in 1965 retired from the directorship of The Geisinger Medical Center's department of obstetrics and gynecology, was honored when the February issue of the Center's "Bulletin" was dedicated to him, commemorating his many years of service . . . A candidate for nomination to the state legislature is **Horace M. Seitz, Jr., M.D.**, Hershey . . . In public speaking appearances, **H. Robert Davis, M.D.**, Boiling Springs, is raising funds with which to provide medical and surgical supplies for Vietnamese civilian patients. Dr. Davis spent January and February in voluntary medical work in Vietnam . . . Serving similarly since early March is **Joseph B. Griffith, M.D.**, Sewickley . . . Receiving Fifty-Year Awards at the annual banquet of the York County Medical Society were **Drs. Maurice C. Wentz** and **Charles L. Fackler**, both of York . . . **Frank H. Krusen, M.D.**, Philadelphia, has been appointed director of rehabilitation for Temple University. **Bernard Sandler, M.D.**, also of Philadelphia, succeeds Dr. Krusen as chairman of the department of physical medicine and rehabilitation of Temple's School of Medicine . . . **John F. Hartman, Jr., M.D.**, Erie, was named chairman of the PMS Committee to Nominate Delegates and Alternates to the AMA for 1965-66 . . . **John B. Montgomery, M.D.**, Philadelphia, is a new member of the committee.

THIS MONTH

- Officers' Conference, Harrisburg, April 28-29.

NEXT MONTH

SURGICAL MANAGEMENT OF RENOVASCULAR HYPERTENSION

The problem of identifying hypertension produced by a dynamically significant stenosis of a renal artery remains a challenge to the clinician and to the surgeon. The article summarizes results of twenty-seven cases.

IF DR. DICK HAD HAD HIS WAY–

George Washington might have survived long beyond 1799 if one of his physicians had been able to convince the other two that a tracheotomy should be done.

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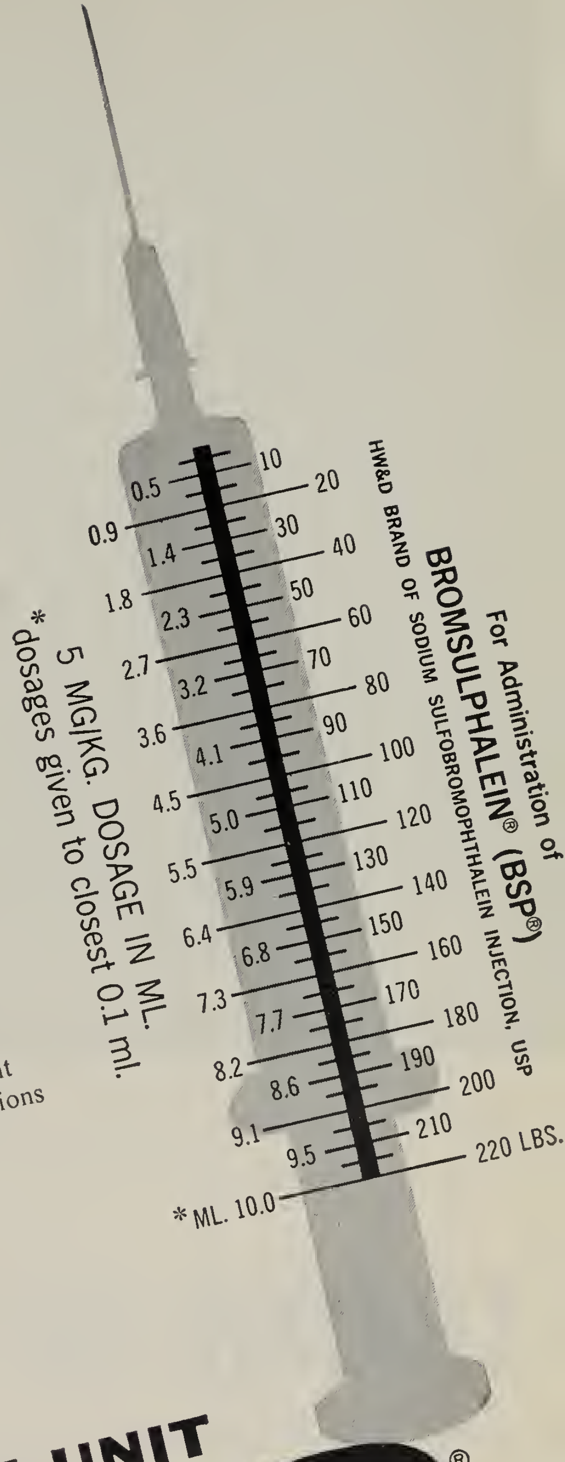
A RELIABLE, PROVEN PRODUCT . . .
The BSP test, introduced in 1925, remains one of the most sensitive laboratory procedures available for determining hepatic function.

A STERILE, CONVENIENT PUT-UP . . .
Each BSP Disposable Unit contains: a sterile, glass, disposable syringe with the 5 mg./kg. BSP dosage schedule imprinted on the barrel, a sterile needle, alcohol swab and a 7.5 ml. or 10 ml. size ampule of Bromsulphalein.

The BSP unit is designed for maximum patient protection. The precalibrated syringe makes weight calculations unnecessary and provides for proper dosage regardless of patient-weight.

ECONOMICALLY PACKAGED . . .
Prepared for economic unit dispensing, this completely disposable put-up affords a savings in time and labor—the most costly commodities.



5 MG/KG. DOSAGE IN ML.
*dosages given to closest 0.1 ml.

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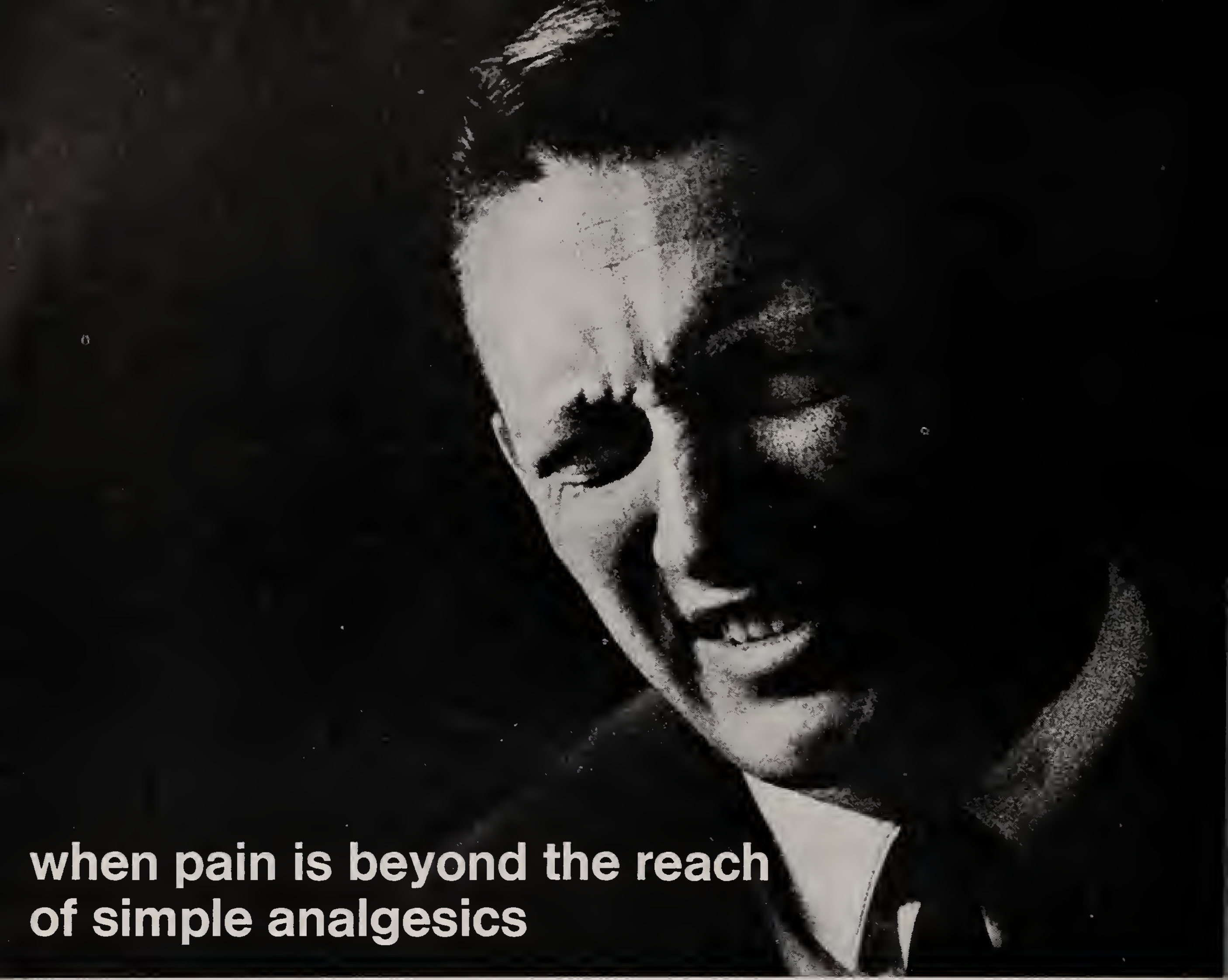
when pain is beyond the reach
of simple analgesics

In the management of mild to moderate pain, give your patients comprehensive relief. TRANCO-GESIC extends the range of usefulness of aspirin by dimming pain perception—and *also* reducing mental and muscle tension.

TRANCO-GESIC®
tablets
chlormezanone 100 mg. with aspirin 300 mg.

subdues the major contributors to pain:

- pain perception
- mental tension
- muscle tension-spasm

TRANCO-GESIC is so well tolerated it can be prescribed for anyone who can take aspirin. It is non-narcotic, and free from dangers of addiction, habituation, or dependence. TRANCO-GESIC is effective in all types of mild and moderate pain. Of 862 patients who were treated with chlormezanone and aspirin for various disorders, 88% reported excellent or good pain relief.[1]

Side effects have been minor. Occasionally gastric distress, weakness, sedation or dizziness occur. Reversible cholestatic jaundice has been reported on rare occasions. However, in 4,653 patients treated with chlormezanone, 97.7% had *no* side effects.[1] *Contraindication:* just one: sensitivity to aspirin. *Dosage:* Adults, usually 2 tablets three or four times daily. Children (from 5 to 12 years), 1 tablet three or four times daily.

1. Collective studies, Department of Medical Research, Winthrop Laboratories.

Winthrop WINTHROP LABORATORIES, NEW YORK, N. Y. 10016

PENNSYLVANIA MEDICINE

OFFICIAL PUBLICATION OF THE PENNSYLVANIA MEDICAL SOCIETY

FORMERLY THE PENNSYLVANIA MEDICAL JOURNAL

APRIL, 1966 VOLUME 69 NUMBER 4

ORIGINAL PAPERS

BLUNT TRAUMA TO THE LIVER

Drs. Joseph W. Stayman, Robert N. Swartley, Eugene P. Hughs, and Edward D. McLaughlin

Surgery is indicated in cases of nonpenetrating injury to the liver. Collaborating doctors report on their experiences, and on information from the literature. Page 31.

POWWOW IN PENNSYLVANIA

George M. Guthrie, Ph.D., and Gary A. Noll

Still in use throughout the state, these folk medicine practices have many earnest adherents. Two researchers at The Pennsylvania State University share their findings. Page 37.

INTUSSUSCEPTION FROM DUODENAL LIPOMA

Drs. Joseph W. Stayman and Alfred O. Heath

The authors discuss a relatively rare occurrence, and report on a representative case. Page 43.

THE STATUS OF INJECTION THERAPY

Philip M. Gottlieb, M.D.

A widely known allergist describes materials and methods used in inhalant allergy therapy, and presents his opinions. Page 48.

ISOPROPYL ALCOHOL AND DIABETES

Robert Vermeulen, M.D.

In treating a known controlled diabetic who appears to be in coma, it is wise to consider what he may have been drinking. Page 53.

PM SPECIAL FEATURE

SPEECH THERAPIST TO MEDICAL INVENTOR

William R. Donohue, A.R.I.T.

Perfecting some devices, envisioning others, A. G. Bell was a genius who greatly influenced all of life—including certain aspects of medicine. Page 61.

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COVER PHOTO

■ The magic of powwow calls into play a strange assortment of objects, and is applied to a wide range of problems and ills. Since writing the article appearing on page 37 of this issue, the authors have learned that powwowers' powers are even being used to start recalcitrant automobiles! A folk practice with roots in the dim past appears to be keeping up with the machine age.

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THIS MONTH

At Hershey

First of Faculty Named; Recruiting Will Continue

The determination of officials at the Hershey Medical Center to stress family practice in training future physicians was demonstrated with the engaging of the first three faculty members for a proposed department of family and community medicine.

Named in February shortly before ground was broken for the center:

Claude F. Light, M.D., of Hershey, who will be assistant clinical professor in the department, Thomas L. Leaman, M.D., also of Hershey, and Hiram L. Wiest, M.D., his partner, formerly of East Petersburg.

"We want to concentrate on the humanistic approach to medicine here, the person-to-person relationship of doctor and patient," said George T. Harrell, Jr., M.D., dean of the college of medicine, and center director.

The new department will consist of local physicians with successful family practices, according to Dr. Harrell.

"We will take them into the medical center, where they will continue their practices, providing our students with 'on-the-scene' training and experience in family practice," he explained.

Although the department will not be in operation until April of 1968, in the interim, the three physicians on the faculty will undertake special training at medical schools in order to learn how to "think, talk, and work" like students.

Dr. Harrell, at groundbreaking ceremonies, said this will be the first time that full faculty status has been given to the family physician.

He said that faculty recruitment for the entire center will continue during the next five or six years, then continue at a slower pace for up to twenty years.

The first students and physicians taking postgraduate training are to be admitted next year.

A DEAN IS NAMED

During the groundbreaking for the medical center at Hershey in February, Eric A. Walker, president of The Pennsylvania State University, related how George T. Harrell, M.D., came to be dean of the medical school and director of the center.

The scene was the Cosmos Club in Washington, D.C., about two years ago. Drs. Walker and Harrell had just spent hours going over piles of papers dealing with possible candidates for the job.

Dr. Walker, who said he hadn't seriously considered Dr. Harrell because he had just finished creating the University of Florida College of Medicine, turned to him, saying:

"George, why don't you take this job?"

"Why, you never asked me," replied Dr. Harrell.

From that moment on, Hershey College of Medicine had a dean.

Genetic Counseling Unit Planned at Jefferson

Plans to establish a genetic counseling unit at Jefferson Medical College and Medical Center, Philadelphia, have been announced by William A. Sodeman, M.D., dean and vice-president for medical affairs, and Roy G. Holly, M.D., professor and head of the department of obstetrics and gynecology, the director.

The unit, to provide advice and counseling on hereditary diseases and malformations, will be multidisciplinary. It is partially supported by the State Health Department.

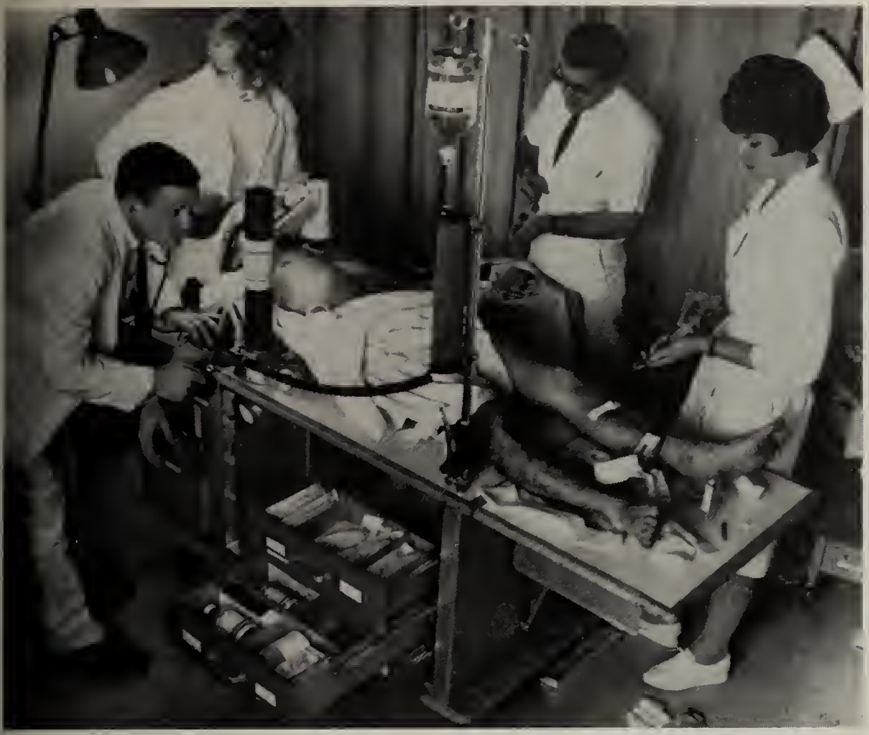
Genetic research, research training, and education will be represented by the departments of medicine, pediatrics, preventive medicine, obstetrics and gynecology, neurology, and psychiatry.

Complete laboratory studies, including chromosome and dermatoglyphic analyses, will be available.

Patients must be referred by a physician, a dentist, a municipal or state health agency, or any of the voluntary health agencies.

For information write Genetic Counseling Unit, Jefferson Medical College Hospital, Philadelphia 19107.

MODEL SCENE—George T. Harrell, Jr., M.D. (center), shows a scale model of the future Milton S. Hershey Medical Center to visitors, left to right, Claude F. Light, M.D., Hershey, Thomas L. Leaman, M.D., Hershey, Lester H. Perry, executive director of the PMS, and William B. West, M.D., PMS president, on the day of the center's groundbreaking.



LIFE SAVERS—A simulated cardiopulmonary emergency shows the team ready for action, with monitoring equipment and assorted drugs and supplies easily available. "MAX" was designed by Joel J. Nobel, M.D., during his residency at the Pennsylvania Hospital.

Heart Attack Drug-Testing Project Set; Other Grants

Philadelphia's Albert Einstein Medical Center will participate in a national seven-year research investigation financed by a federal grant of more than $646,000, to determine whether certain drugs can provide protection against repeated heart attacks.

The center has also received a federal grant of $52,870 for mammography training of radiologic residents and technicians.

At Jefferson Medical College, a gift of $20,000 was received from Merck Sharp and Dohme to support statewide cooperative continuing medical education programs. The college also received an unrestricted $5,000 grant for eye studies from Research to Prevent Blindness, Inc.

The federal government awarded Philadelphia General Hospital $900,000 for a three-year research study of cerebrovascular disease.

Nearly $210,000 in general research support funds has been allocated by the federal government to the schools of medicine and dentistry at Temple University Health Sciences Center. Slated for aid is a department of radiology program on stereo-television equipment combined with cinefluorographic procedures.

Children's Hospital, Philadelphia, has been given $4,000 by the Philadelphia Foundation for the study of child patients with hearing problems.

Recent Public Health Service research grants in Pennsylvania include $93,134 for the Pennsylvania Hospital, Philadelphia, for continuation education and patient management, and $26,374 for Jefferson Medical College of Philadelphia for study of patient utilization of clinics at a medical college.

PENNSYLVANIA MEDICINE

Current Circulation

13,298

- Average monthly circulation for six-month period ending December, 1965; Business Publisher's Sworn Statement, Standard Rate and Data Service.

Pennsylvania Hospital's 'MAX'-imum Efficiency

In just 26 seconds, a three- or four-person team can have a patient ready for emergency cardiac resuscitation with the new vehicle nicknamed "Max." Twice as many people, and at least seven times as many minutes are required when a conventional emergency cart is used. At Pennsylvania Hospital, Philadelphia, "Max" has been used scores of times within the past year.

Alerted by an electronic emergency command system, personnel, with equipment, quickly reach the patient's bedside and transfer the patient to the litter surface. Respirator, pneumatically powered external cardiac compressor, and EKG needle electrodes applied simultaneously project the patient's heart trace on the cardioscope. Next a vein cutdown is done, as a route for intravenous drugs, and an endotracheal tube is inserted to assure an open airway.

A defibrillator and a pacemaker are part of the equipment, and drugs, surgical instruments, and other supplies are available in Max's drawers and cabinets (which, once opened, cannot be closed without a special key, assuring complete inventorying and restocking after each use).

As the patient is transported (still on Max) to the intensive care area or to surgery, he is sustained by the device's self-contained oxygen, electrically powered respirator, and other equipment.

Subsequent care is aided by Max's automatically recorded data on measures used with the patient.

Joel J. Nobel, M.D., designed the unit during his residency in surgery at Pennsylvania Hospital.

Fitzgerald Mercy Expands

Occupancy of the $3.5 million medical science building at Fitzgerald Mercy Hospital, Darby, is scheduled for early fall, releasing space for an additional one hundred beds, bringing the total to 450.

Offices now housed in the main hospital building will be moved to the new facility. Additional parking space for two hundred cars will be provided by a new underground garage, supplanting a unit erected in 1932-33, when the hospital was built.

Hahnemann Adds Health Services Unit

A comprehensive health services building for ambulatory private patients is under construction at the Hahnemann Medical College and Hospital, Philadelphia.

Named in memory of the late Philadelphia financier and philanthropist, Myer Feinstein, the $1,750,000, five-story building adjoins the existing hospital building on Broad Street.

A complete radiation therapy center and special procedure rooms will be among the features.

Pre-employment examinations and periodic health surveys will be done by contract arrangements. Individuals and families will be seen by referral from private physicians.

The radiation center will be used for diagnoses and treatment of many diseases, but the primary emphasis will be on cancer.

Meeting Dates, Places

Pennsylvania Thoracic Society and **Pennsylvania Chapter, American College of Chest Physicians**—eighth joint meeting, April 14, The Inn, Buck Hill Falls.

Pennsylvania Society of Anesthesiologists—annual scientific meeting, May 14, Bedford Springs Hotel, Bedford.

Medical Society of New Jersey—bicentennial anniversary meeting, May 14–18, Haddon Hall, Atlantic City.

Middle Atlantic Hospital Assembly—eighteenth annual meeting, May 17–19, Atlantic City.

First International Congress on Smoking and Health—June 5–8, New York Hilton.

Symposium on Modern Trends in Middle Ear Surgery—Academy of Medicine of New Jersey and the New Jersey Academy of Ophthalmology and Otolaryngology, May 18, Newark, New Jersey.

Second International Medical-Legal Seminar—The Pittsburgh Institute of Legal Medicine and the National University of Mexico Medical School, April 29–30 and May 13–14, Mexico City and Acapulco.

Postgraduate Seminar on Pediatric Otolaryngology—Division of Graduate Medicine, University of Pennsylvania, Philadelphia, June 2–4.

Philadelphia Orthopaedic Society—For physicians in a four-state area, at the Philadelphia County Medical Society building, 2100 Spring Garden Street, Philadelphia, April 15.

- Pennsylvania was one of twenty-eight states free of poliomyelitis in 1965.

Correction

Here are several corrections to the list of laboratories in Pennsylvania accepting cytology specimens by mail, which was published on page 20 in the February issue:

New Castle. Delete Golden Selin, New Castle Hospital (16101); insert George F. Wagman, St. Francis Hospital (16101).

Pittsburgh. Delete Richard G. McManus, Western Pennsylvania Hospital (15224); insert Glenn Reed, Western Pennsylvania Hospital (15224).

Sharon. Delete Frederick J. Raisch, Sharon General Hospital (16147); insert Donald L. Cohen, Sharon General Hospital (16147).

Also, under Pittsburgh, make this addition:

Cyril Wecht, Oakland Professional Building, 220 Meyran Avenue, (15213).

Einstein Offers Free Mammography Courses

Philadelphia's Albert Einstein Medical Center is offering tuition-free mammography training for physicians and technicians.

Some one hundred physicians and a like number of technicians will be trained each year under the program, supported by a $160,000 federal government grant.

Separate courses for physicians are planned. Practicing radiologists and radiology residents are eligible.

Individual courses last less than one week.

Applications are being taken by Harold J. Isard, M.D., chairman of Einstein's division of radiology.

Surgical Session Set

The annual meeting of Southwestern Pennsylvania Chapter of the American College of Surgeons at the Pittsburgh Hilton Hotel on April 6 will feature a balanced program covering various surgical specialties.

In addition to participation in two major panels, each society will have its own specialty meeting.

Joining in the one-day meeting will be the operating room nurses, Pennsylvania Nurses Association; Interstate Orthopedic Association; Pittsburgh Ophthalmological, Otological, Proctological, Surgical, and Urological Societies; the Pittsburgh Society of Obstetrics and Gynecology; and Western Pennsylvania Society of Anesthesiologists.

Chest Unit Slates Contest

The Pennsylvania Association for Thoracic Surgery has announced its first annual essay competition, open to all residents or fellows in general or thoracic surgery.

Direct inquiries to: Lt. Col. Paul A. Thomas, M.C., Department of Surgery, P. O. Box 233, Valley Forge General Hospital, Phoenixville 19460.

- Pennsylvania is one of the states with laws providing that state-financed buildings be erected with ramps, elevators, wide doors, and public conveniences for easy use by the handicapped.

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Each capsule contains: Thiamine mononitrate (B_1), 15 mg.; Riboflavin (B_2), 10 mg.; Pyridoxine hydrochloride (B_6), 5 mg.; Nicotinamide, 50 mg.; Calcium pantothenate, 10 mg.; Ascorbic acid (vitamin C), 300 mg.

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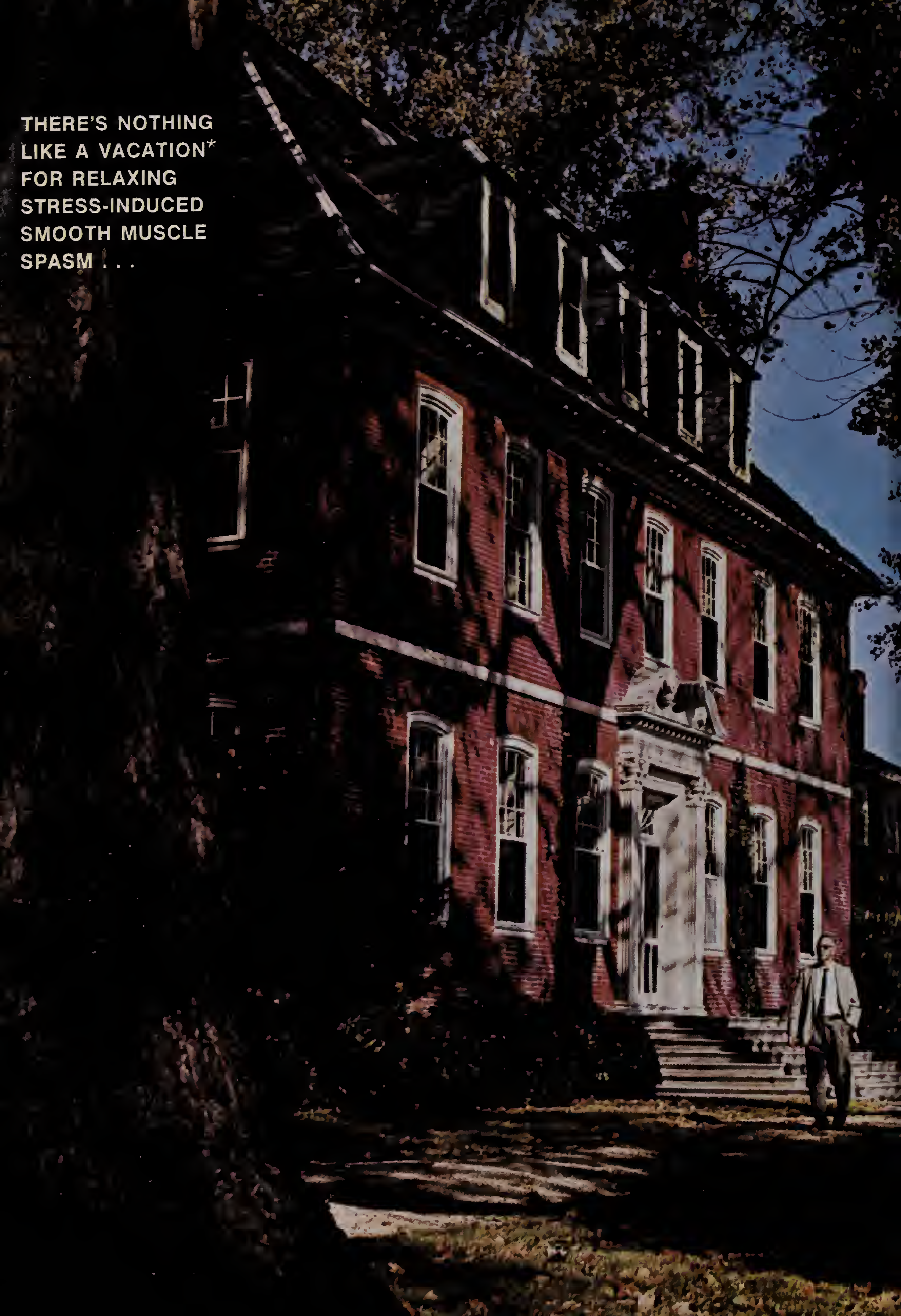
THERE'S NOTHING
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FOR RELAXING
STRESS-INDUCED
SMOOTH MUSCLE
SPASM . . .

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BENEFITS OF

DONNATAL®

There's nothing quite like a vacation to ease the pressures of the modern, "workingday" world. And for the patient who can't get away from it all, there's nothing quite like Donnatal to relax stress-induced smooth muscle spasm. For 31 years it has been the antispasmodic-sedative most often prescribed for relieving functional disturbances of tone and motility of the gastrointestinal tract.

belladonna alkaloids in optimally balanced ratio

In Donnatal, natural belladonna alkaloids are rationally balanced in a specific, fixed ratio that provides "the greatest efficacy with the smallest possible dose."[1] They avoid the clinical uncertainties of the variable tincture and extract of belladonna, and are considered superior in range of action to atropine alone.[2] Furthermore, they are generally recognized as being more effective than the synthetics for relieving visceral spasm.

phenobarbital for sedation

Years of clinical use have established phenobarbital as one of the most efficient and highly regarded sedatives. In fact, for general sedation it is the drug of choice.[3] In Donnatal, phenobarbital potentiates the spasmolytic effects of the belladonna alkaloids, lessening emotional tensions and checking the neurogenic impulses that trigger GI disorders.

more than 24 indications in PDR

Donnatal has withstood the test of time to become the classic sedative-antispasmodic because of its unsurpassed effectiveness, safety, economy, uniformity of composition, and dosage convenience. Its widespread acceptance and usage by the profession can also be attributed to its versatility in treating disorders characterized by smooth muscle spasm. There are more than two dozen distinct and separate indications for Donnatal listed in the current PDR.

IN EACH TABLET, CAPSULE, OR (5 cc.) OF ELIXIR

hyoscyamine sulfate	0.1037 mg.
atropine sulfate	0.0194 mg.
hyoscine hydrobromide	0.0065 mg.
phenobarbital	($^{1}/_{4}$ gr.) 16.2 mg.

(warning: may be habit forming)

IN EACH EXTENTAB

hyoscyamine sulfate	0.3111 mg.
atropine sulfate	0.0582 mg.
hyoscine hydrobromide	0.0195 mg.
phenobarbital	($^{3}/_{4}$ gr.) 48.6 mg.

(warning: may be habit forming)

BRIEF SUMMARY: Blurring of vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur on higher dosage levels, rarely on usual dosage. Administer with caution to patients with incipient glaucoma, or urinary bladder neck obstruction. Contraindicated in acute glaucoma, advanced renal or hepatic disease, or a hypersensitivity to any of the ingredients.

REFERENCES: 1. Vollmer, H.: Arch. Neurol. and Psychiat., 43:1057, 1940. 2. Morrissey, J.H.: J. Urology, 57:635, 1947. 3. Krantz, J.C., Jr., and Carr, C.J.: Pharmacological Principles of Medical Practice, 2nd ed., Baltimore (1954), 552.

*This one at Westover, elegant Colonial Virginia plantation, located on the James River near Richmond. Built in the early 1730's by William Byrd II, founder of Richmond, it is now the home of Mrs. Bruce Crane Fisher.

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and cerebral stimulation for th

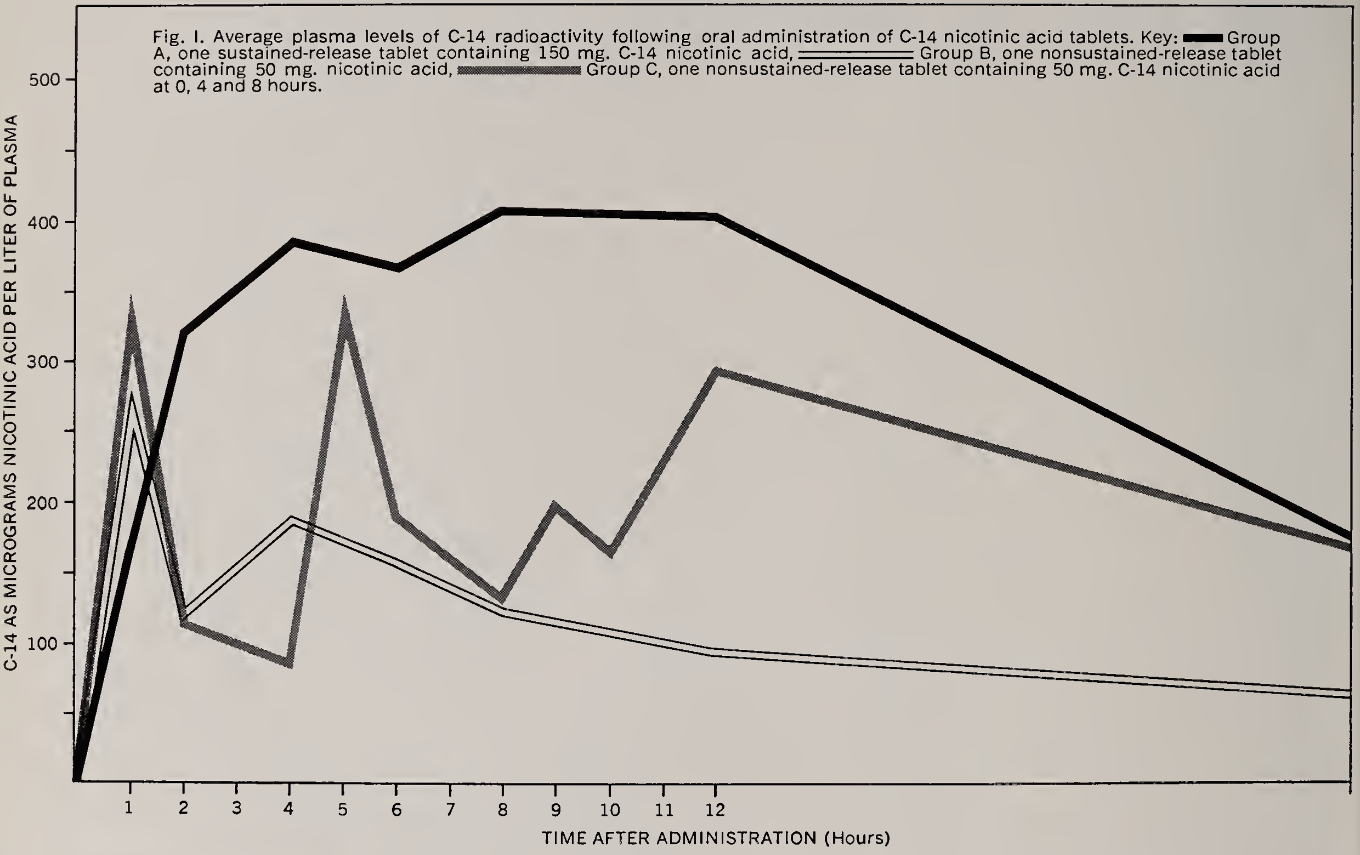

Fig. I. Average plasma levels of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═ Group B, one nonsustained-release tablet containing 50 mg. nicotinic acid, ▨ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

(fewer absent doses by absent-minded patients)

Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated

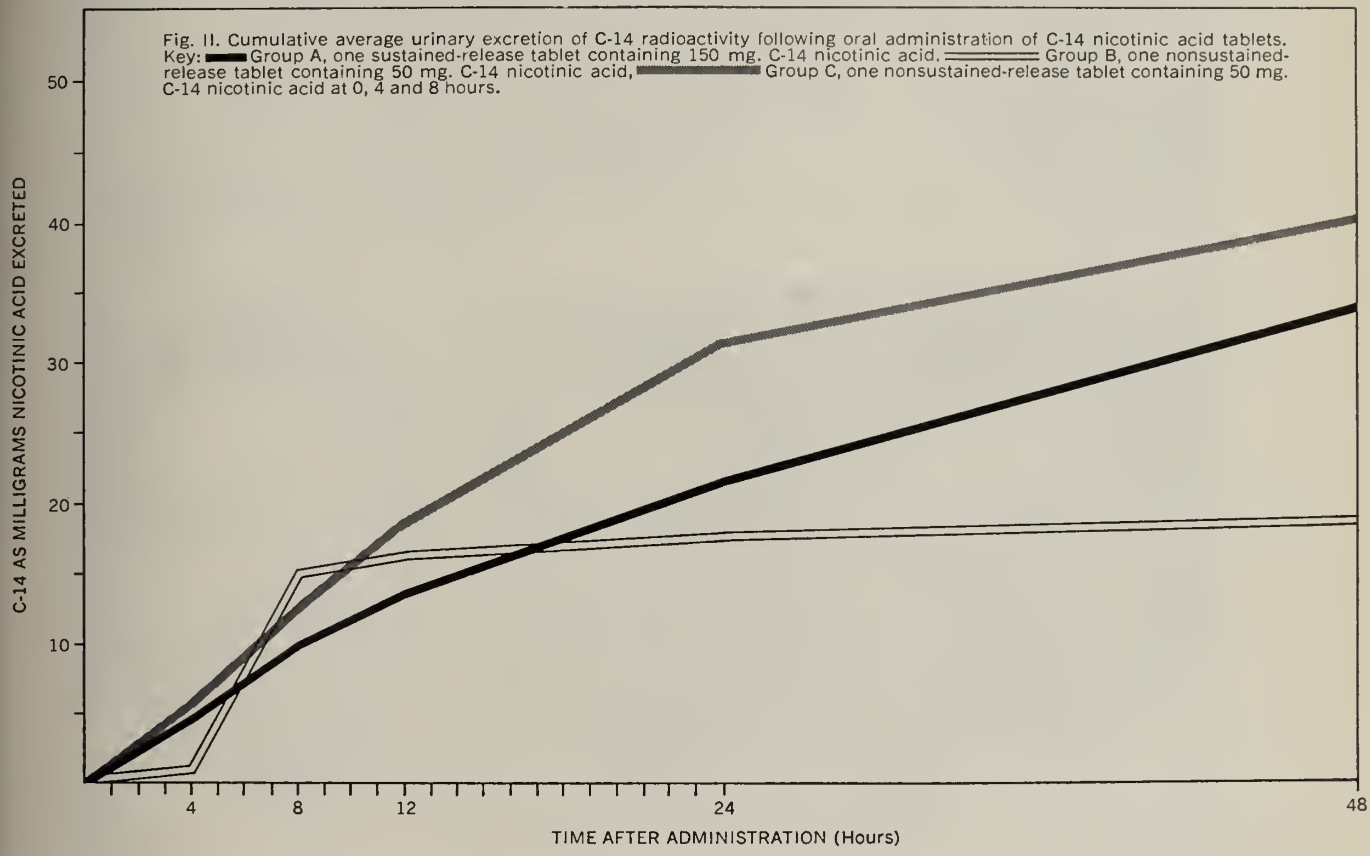

Fig. II. Cumulative average urinary excretion of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═ Group B, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid, ▬ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

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Tempotrol® Time Controlled Tablet

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"All Interns are Alike"

It stands to reason. They all go through the same training; they all have to pass the same tests; they all have to measure up to the same standards; they all are underpaid, too. Therefore, all interns are alike.

That's utter nonsense, of course. But it's no more nonsensical than what some people say about aspirin. Namely: since all aspirin is at least supposed to come up to certain required standards, then all aspirin tablets must be alike.

Bayer's standards are far more demanding. In fact, there are at least *nine specific differences* involving purity, potency and speed of tablet disintegration. These Bayer® standards result in significant product benefits including gentleness to the stomach, and product stability that enables Bayer tablets to *stay* strong and gentle until they are taken.

So next time you hear someone say that all aspirin tablets are alike, you can say, with confidence, that it just isn't so.

You might also say that all interns aren't alike, either.

M.D.'s in The News

Philip J. Hodes, M.D., Philadelphia, was a speaker at the Chicago meeting of the American College of Radiology.

William A. Sodeman, M.D., Philadelphia, vice-president and dean of Jefferson Medical College, is a member of President Johnson's National Advisory Council on Medical, Dental, Optometric, and Podiatric Education.

Stanford E. Bazilian, M.D., has been named director of the department of psychiatry at Philadelphia General Hospital, succeeding **Ralph A. Luce, Jr., M.D.**, who recently resigned.

Alvin F. Goldfarb, M.D., Philadelphia, will conduct a gynecologic endocrinology course at the annual clinical meeting of the American College of Obstetricians and Gynecologists in Chicago next month. Early in April, he was general program chairman of a symposium at Jefferson Medical College on recent advances in the treatment of menstrual dysfunction. Among faculty members were Drs. **Samuel McCann** and **S. Leon Israel**, both of Philadelphia.

Pauline W. McCandless, M.D., Franklin, received a Franklin Citizenship Award for work in cancer prevention education and in civic projects.

Edgar L. Dessen, M.D., Hazleton, was elected a director of the Pennsylvania Power and Light Company.

Among newly-inducted Fellows of the American College of Radiology are Drs. **Norman B. Tannehill**, Coraopolis, **John T. Brackin, Jr.**, Lansdale, and **Bertram R. Girdany**, Pittsburgh.

Robert W. Hyatt, M.D., Philadelphia, was appointed director of the Episcopal Hospital department of obstetrics and gynecology.

John R. Mazero, M.D., Latrobe, was appointed to the newly-created position of medical director at Latrobe Hospital.

David S. Smith, M.D., Philadelphia, is the new director of inpatient services at St. Christopher's Hospital for Children.

Serving on an Advisory Committee on Veterinary Medicine for the Food and Drug Administration is **Mark W. Allam, V.M.D.**, Philadelphia, dean of the University of Pennsylvania School of Veterinary Medicine.

John H. Moyer, M.D., Bala Cynwyd, received the Theodore and Susan Cummings Humanitarian Award at the Chicago convocation of the American College of Cardiology, in recognition of his devotion to mankind and to this nation.

An appreciative father's message appeared in the *Paxton Herald*, relating that **William S. Gordon, M.D.**, Harrisburg, trudged almost two miles through huge snowdrifts to attend a young girl who was ill.

Friends of **Robert D. Dripps, M.D.**, Philadelphia, have endowed a professorship of anesthesia in his honor at the University of Pennsylvania School of Medicine, where Dr. Dripps is chairman of the department of anesthesia.

The Littlestown Chamber of Commerce named **Leonard L. Potter, M.D.**, "Citizen of the Year," presenting him with a plaque bearing an inscription in praise of his many years of service to the community and area.

John H. Gibbon, Jr., M.D., Philadelphia, Samuel D. Gross professor of surgery at Jefferson Medical College, was awarded an honorary fellowship in the American College of Cardiology. He also received the Roswell Park Medal from the Buffalo Surgical Society.

Paul H. Fried, M.D., Philadelphia, was a panel member at the Acapulco meeting of the International Fertility Association. He also participated in the postgraduate seminar in obstetrics and gynecology of the University of California School of Medicine in San Francisco.

Among those taking part in a postgraduate seminar presented in Kingston, Jamaica, were Drs. **Emory A. Rittenhouse**, McKeesport, and **Kenneth Hinderer, Paul Holl, Joseph F. Novak, Alexander A. Krieger**, and **Irwin S. Terner**, all of Pittsburgh. In a similar meeting at Port of Spain, Trinidad, the following participated: Drs. **Rittenhouse** and **Krieger**, and Drs. **Thomas Evans** and **William Hauk**, both of Pittsburgh, **James H. Delaney**, Erie, **Bernard Braveman**, McKeesport, and **Jack Brandt**, Lock Haven.

John C. Gaisford, M.D., Pittsburgh, has been elected to the board of governors of the American College of Surgeons as a representative of the American Society of Plastic and Reconstruction Surgery.

Eugene D. Robin, M.D., Pittsburgh, president-elect of the Pennsylvania Thoracic Society, and **H. William Harris, M.D.**, Philadelphia, have been appointed councilors-at-large for the American Thoracic Society. **Robert V. Cohen, M.D.**, Philadelphia, is ATS representative councilor for the Pennsylvania Thoracic Society. Also active in the ATS are: Drs. **Philip A. Bromberg** and **Ian T. Higgins**, both of Pittsburgh, and **Robert C. Austrian, Robert L. Mayock, Richard H. Saunders, Jr.**, and **Hadley L. Conn, Jr.**, all of Philadelphia.

David A Cooper, M.D., Philadelphia, has been honored by the Philadelphia Tuberculosis and Health Association for his outstanding record as a physician and public servant.

Beginning a five-year medical mission this month in Thailand is **John A. Payton, M.D.**, Donora. His wife and two children accompanied him to the post at Maranatha Leprosy Village and Bible School.

John W. Hope, M.D., Philadelphia, presented papers at a conference of the Dallas (Texas) Southern Clinical Society, and at Ohio State University's annual pediatric postgraduate conference.

At a meeting of the American Laryngological Association in San Juan, Puerto Rico late this month, **Joseph P. Atkins, M.D.**, Philadelphia, will speak on "Metastatic Carcinoma of the Esophagus."

Special meetings at the Children's Hospital of Philadelphia, and a reception at the Barclay Hotel, honored **Joseph Stokes, Jr., M.D.**, Philadelphia, on his seventieth birthday. Dr. Stokes is the hospital's former physician-in-chief.

Perry H. Engstrom, M.D., Wahpeton, North Dakota, has been a volunteer with Project Vietnam. A native of Kane, Pennsylvania, Dr. Engstrom is an alumnus of the University of Pittsburgh School of Medicine.

Roy G. Holly, M.D., Philadelphia, was the annual Roden Visiting Professor in Obstetrics and Gynecology at the University of Missouri Medical Center.

Howard N. Baier, M.D., Philadelphia, was guest speaker at the Arthritis Foundation's regional meeting in New York City.

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Effective in a wide range of everyday infections—respiratory, urinary tract and others—in the young and aged—the acutely or chronically ill—when the offending organisms are tetracycline-sensitive.
Warning—In renal impairment, usual doses may lead to excessive systemic accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of discomfort.
Precautions and Side Effects—Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. Use of demethylchlortetracycline during tooth development (last trimester of pregnancy, neonatal period and early childhood) may cause dis-

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coloration of the teeth (yellow-grey-brownish). This effect occurs mostly during long-term use but has also been observed in short treatment courses. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment. Side reactions include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and dermatitis. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Anaphylactoid reactions have been reported.

Contraindication—History of hypersensitivity to demethylchlortetracycline.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products.

Capsules: 150 mg of demethylchlortetracycline HCl.

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Postgraduate Courses

ABINGTON

Basic Science and New Techniques in Medical Disease, Abington Memorial Hospital, first Tuesday of each month, through June, 4 P.M.; 10 hours AAGP. Contact P. M. Roediger, M.D., at the hospital.

ALLENTOWN

Continuing Medical Education TV Series, New York Academy of Medicine, at Sacred Heart Hospital, first, second, and fourth Wednesdays, through June, 12 M. Contact E. K. Sipes, M.D., 24 North 18th Street (18104).

(These courses are held at Allentown Hospital on dates indicated; each 3 hours AAGP.)

Dermatologic Manifestations of Systemic Disease; Misuse of Steroids,* April 14, 12 M.–2:45 P.M.

Pediatrics (The Limping Child),* May 12, 9 A.M.–12:30 P.M.

ALTOONA

(These courses are held at Altoona Hospital, 10 A.M.–12:30 P.M., on dates indicated; each 2 hours AAGP; fee, $5.00.)

Tuberculosis and Unclassified Mycobacteria: Current Clinical,* April 7.

Postoperative Pulmonary Complications: Prevention and Management,* April 21.

Positive Approach to Strokes* (at Mercy Hospital), May 5.

BEDFORD

Eighteenth Annual Scientific Session, PAGP, at Bedford Springs Hotel, June 8–11; 20 hours AAGP. Contact R. E. Bryan, M.D., 514 West Third Avenue, Warren 16365.

BETHLEHEM

(These courses are held at St. Luke's Hospital, 8:30 A.M.–12 M., on dates indicated; each 3 hours AAGP.)

Treatment of Fetoacidosis and Hypoglycemia,* April 21. Fee, $7.00. Contact N. O. Cattell, University Park 16802.

Diabetes (Problems of Diabetic Children),* May 19; fee, $7.00.

BUSHKILL AREA

Recent Advances in Surgery,* at Tamiment Inn, May 5–7; fee, $50; 18 hours AAGP.

EASTON

Cancer Seminar, Wainwright Tumor Clinic Association of Pennsylvania, at Easton Hospital, May 11, 9 A.M.–5 P.M.; 6 hours AAGP. Contact H. R. Gilmore, Jr., M.D., P.O. Box 90, Harrisburg 17120.

EPHRATA

Current Management of Common Maladies, Hahnemann Medical College and Hospital and Lancaster AAGP, at Ephrata Community Hospital, April 27, 9:30 A.M.–3 P.M.; fee, $5.00 (includes lunch); 4 hours AAGP. Contact P. S. Schantz, M.D., 103 West Main Street, Ephrata 17522.

HARRISBURG

Sixteenth Postgraduate Seminar, Southcentral Chapter PAGP, at Harrisburg Hospital, May 12, 9:20 A.M.; 6 hours AAGP. Contact S. D. Ulrich, M.D., 3420 Derry Street, Harrisburg 17111.

JOHNSTOWN

(This course is held at Conemaugh Valley Memorial Hospital, 7–9 P.M.; 2 hours AAGP.)

Recognition and Management of Functional Disease,* April 28.

LANCASTER

Medical Seminars, Lancaster General Hospital and Temple University Medical Center, at Lancaster Hospital; no registration fee; luncheon, seventy-five cents; AAGP accreditation; meet at 11 A.M., each date: April 20, "The Physical Diagnosis of Heart Disease"; May 5, "The Patient with Multiple Injuries"; May 18, "Glucose and Fatty Acid Metabolism in Diabetes Mellitus." Contact H. W. Miller, M.D., 525 North Duke Street (17602).

McKEES ROCKS

Management of the Jaundiced Patient—Medical and Surgical,* at Ohio Valley General Hospital, May 25, 9 A.M.–12:15 P.M.; fee, $6.00; 3 hours AAGP.

PHILADELPHIA

Family, Sex, and Marriage Problems in General Practice,* at Philadelphia Marriage Council on Wednesdays, through May 4, 3:30–5:30 P.M.; 12 hours AAGP. Contact Martin Goldberg, M.D., School of Medicine, University of Pennsylvania (19104).

Arterial Occlusive Disease (16th Hahnemann Symposium),* at Marriott Motor Hotel, April 20–23. Contact Miss Sage Rosen, 230 North Broad Street (19102).

Atherosclerotic Vascular Disease, 16th Hahnemann Symposium, at Marriott Motor Hotel, April 27–30, eight hours daily; 32 hours AAGP. Contact A. N. Brest, M.D., Hahnemann Medical College, 230 North Broad Street (19102).

Internal Medicine in Light of Recent Developments, American College of Physicians, at Pennsylvania Hospital, May 9–13; fee, ACP members—$60, nonmembers—$100. Contact E. C. Rosenow, Jr., M.D., Executive Director, 4200 Pine Street (19104).

Clinical Electrocardiographic Interpretation, Hahnemann Medical College and Hospital, Thursdays, 6–9 P.M., through April 21. Contact L. S. Dreifus, M.D., director, 230 North Broad Street (19102).

Interpretation and Therapy of Cardiac Arrhythmias, Hahnemann Medical College and Hospital, at Marriott Motor Hotel, July 25–29. Contact Dr Dreifus, as above.

Broncho-esophagology, Temple University School of Medicine, May 2–13, 1966. By Drs. C. M. Norris and G. F. Tucker, Jr. Regarding tuition, etc., contact Chevalier Jackson Clinic, Temple University Medical Center, 3401 North Broad Street (19140).

Animal and Clinical Pharmacologic Techniques in Drug Evaluation, Hahnemann Medical College and Hospital, at Marriott Motor Hotel, May 16–20. Contact P. E. Siegler, M.D., director, 230 North Broad Street (19102).

Seventeenth Hahnemann Symposium, Nutritional Dysfunction, at Sheraton Hotel, in December. Donald Berkowitz, M.D., director.

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*Anorexia has been suggested as a possible basis for weight loss. However, controlled studies suggest that it is due to the mechanism of drug action. Comparable dosages of DBI-TD do not induce weight loss or lower blood sugar in nondiabetic subjects.

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Sexual Problems in General Practice, Northcentral Chapter PAGP, and Eli Lilly Co., at Danville State hospital, Thursdays, April 7–May 19, 2–4 P.M.; 12 hours AAGP. Contact S. E. Pulver, M.D., 111 North Forty-ninth Street (19139).

New Facets of Cancer in 1966, Temple department of surgery and Temple alumni, at Temple University School of Medicine, May 5, 1–10 P.M. 9 hours AAGP. Contact H. O. Eckleman, 3401 North Broad Street (19140).

Medical Alumni Homecoming Scientific Program, at Temple University School of Medicine, May 6, 9:30 A.M.–12 M., 1:30–5 P.M.; 6 hours AAGP. Contact Mr. Eckleman, as above.

POTTSVILLE

(These courses are held at Pottsville Hospital, 11:30 A.M.–2 P.M., on dates indicated; each 3 hours AAGP.)

Current Concepts in Gout, April 14.

Diagnosis, Management of Pelvic Pain,* May 12.

When Is Lung Cancer Curable?* June 9.

SCRANTON

(These courses are held at Mercy Hospital, 9:30 A.M.–12 M., on dates indicated; each 3 hours AAGP.)

Management of Menstrual Disease,* April 20.

Advances in Diabetes,* May 18.

SHAMOKIN AREA

Symposium, Pennsylvania AGP and Lederle Laboratories, at Holiday Inn, Shamokin Dam, May 11, 10 A.M.–4 P.M.; 4 hours AAGP. Contact Harriet M. Harry, M.D., 319 South Pugh Street, State College 16801.

WILKES-BARRE

(These courses are held at Wilkes-Barre General Hospital, 9 A.M.–12 M., on dates indicated; each 3 hours AAGP.)

Ovulation Control—Stimulation and Suppression,* April 21.

Trauma,* May 19, 8:30 A.M.–12 M.

WILLIAMSPORT

Blood and Plasma Volume Expanders, at Williamsport Hospital, April 20, 10 A.M.–3:30 P.M.; fee, $4.00; 4 hours AAGP.

YORK

(These courses are held at York Hospital, 9:30 A.M.–12 M., on dates indicated; fee, each course, $6.00; each 3 hours AAGP.)

Consecutive Case Conference—Prostatectomy,* April 7.

Parkinsonism—Its Diagnosis and Management,* April 14.

Meetings

STATE SOCIETY

APRIL

Seventh Annual Institute on Perinatal Mortality and Morbidity—Holiday West Motor Hotel, Harrisburg, April 14.

Regional Medicare Conferences—Central, West—Holiday Inn, State College, April 13; Northeast—Holiday Inn, Scranton, April 17; East, Central—George Washington Motor Lodge, Allentown, April 20.

Officers' Conference—Penn Harris Hotel, Harrisburg, April 28–29.

JUNE

Council on Public Service—June 18.

SEPTEMBER

Council on Public Service—September 10.

OCTOBER

One Hundred Seventeenth Annual Session—Penn Sheraton Hotel, Pittsburgh, October 9–13.

REGIONAL

APRIL

Eighth Joint Meeting, Pennsylvania Thoracic Society and Pennsylvania Chapter, American College of Chest Physicians—The Inn, Buck Hill Falls, April 14. In conjunction with annual meeting of Pennsylvania Tuberculosis and Health Society.

1966 Health Conference, New York Academy of Medicine—at the Academy, April 21–22.

MAY

Annual Meeting, Pennsylvania Society of Internal Medicine—Bedford Springs Hotel, Bedford, May 13–15.

Spring Meeting, Pennsylvania Allergy Association—York Valley Inn, just east of York, May 6–8.

Annual Meeting, Pennsylvania Society of Anesthesiologists—Bedford Springs Hotel, Bedford, May 14.

Bicentennial Anniversary Meeting, Medical Society of New Jersey—Haddon Hall, Atlantic City, May 14–18.

Annual Middle Atlantic Hospital Assembly—Convention Hall, Atlantic City, May 17–19.

Pennsylvania Academy of Ophthalmology and Otolaryngology—Bedford Springs Hotel, Bedford, May 18–22.

NATIONAL

APRIL

American College of Clinical Pharmacology and Chemotherapy—Sheraton Hotel, Philadelphia, April 29–30.

JUNE

American Medical Association Annual Convention—Chicago, June 26–30.

International Congress on Smoking and Health—Hilton Hotel, New York, June 5–8.

Deaf Tots' Program Set

A diagnostic-and-training program for preschool children with hearing problems will be conducted June 12-24 at Harmony Hall, near Harrisburg. Each child will be accompanied by his mother or his guardian.

Although a fee of $30 per person has been set ($6.00 for each father, over the weekend), such charges will be waived, if necessary, rather than exclude a particular family.

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* These courses sponsored by Jefferson Medical College and The Pennsylvania State University. For further course information, contact J. H. Killough, M.D., 1025 Walnut Street, Philadelphia 19107.

• **About This Section:** To be publicized, courses must be one-half day (three hours) or more in length, designed for licensed doctors of medicine, and of interest to physicians in an area of several counties or more. Information must be received by the first day of each month, to appear the following month. Each item will appear no more than four times. Address: Commission on Medical Education, 230 State Street, Harrisburg 17105.

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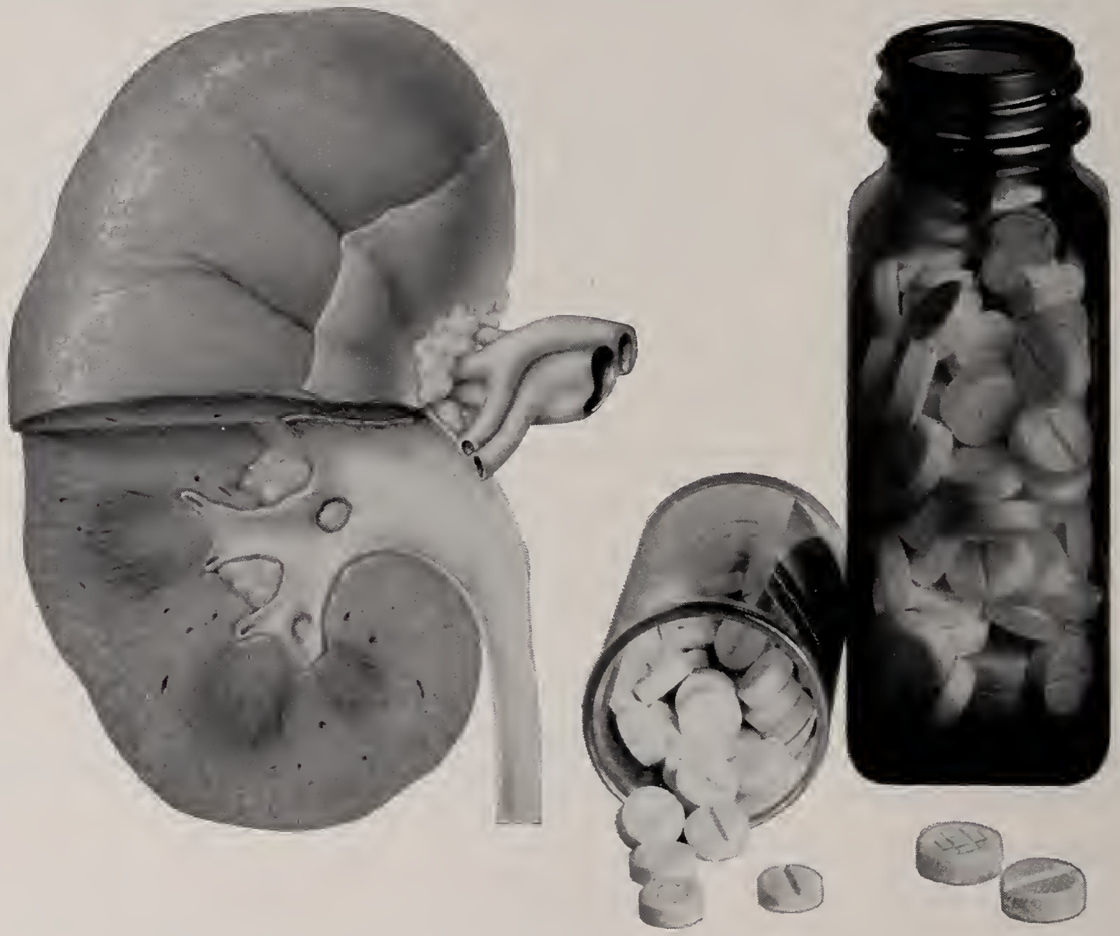

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The development of chlorothiazide and probenecid were events of major importance, but perhaps even more important for the future was the Renal Research Program by which they were developed. When Merck Sharp & Dohme organized this program in 1943, it was expressing in action some of its basic beliefs about research:

- Many problems connected with renal structure and function were still undefined or unsolved. The Renal Research Program would begin its basic research in some of these problem areas.
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For example, the Renal Research Program put fifteen years into this search before chlorothiazide became available. But because these years had first led to a greater understanding of basic problems, the desired criteria for chlorothiazide existed before the drug was developed.

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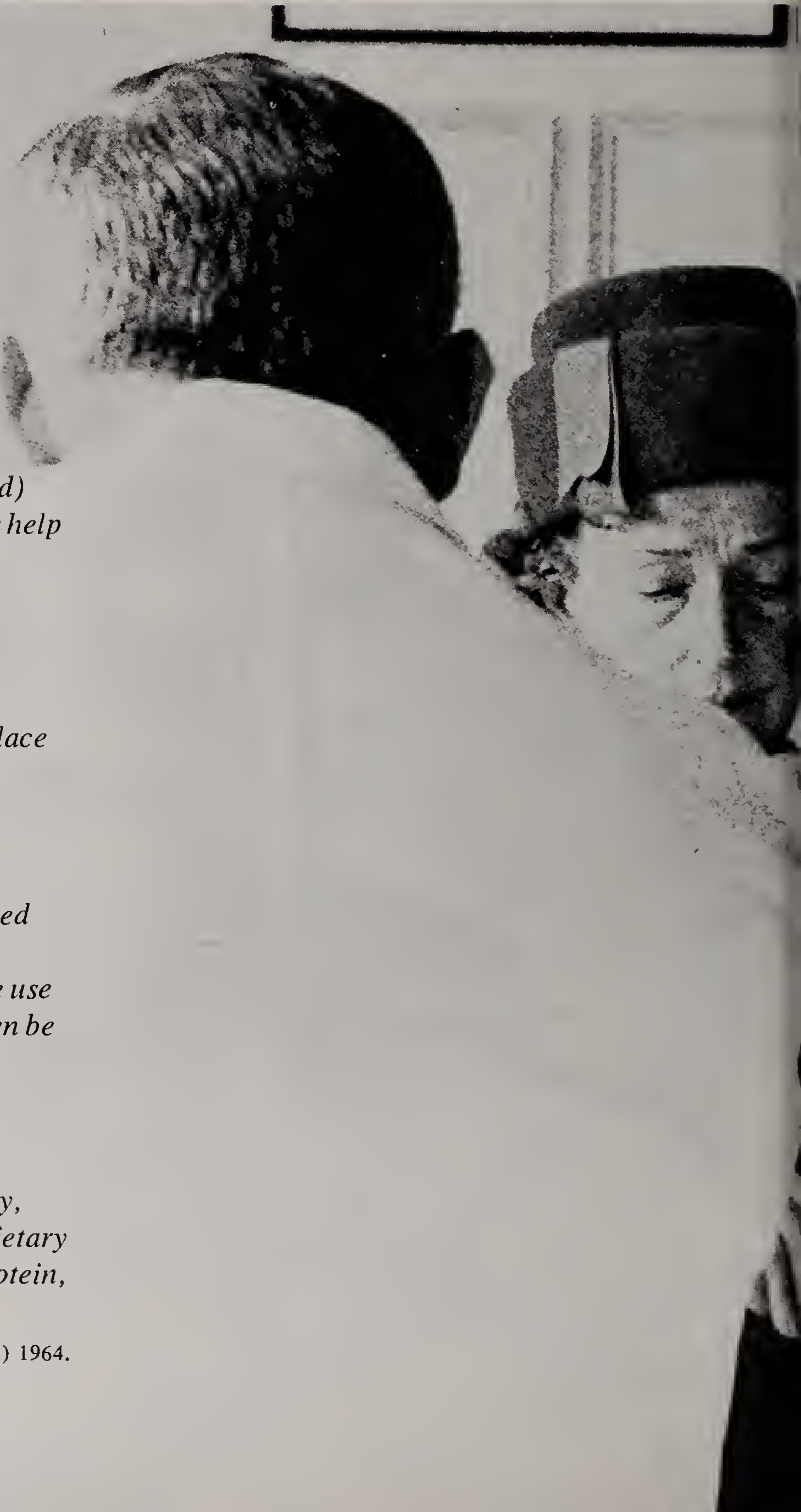

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McNeill, A. J.: Clin. Med. *8*:518 (Mar.) 1961.

"Mediatric (steroid-nutritional compound) capsules, one a day, seem to give definite help to debilitated patients."

Arnold, E. T., Jr.: Geriatrics *12*:612 (Oct.) 1957.

"Nutritional and hormone bolstering of function in the aged may have a useful place in geriatrics."

Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

"In diets which for any reason are restricted in calories, enough of these substances (B vitamins) may not be supplied . . . The use of B and C vitamin supplements may then be justified and indeed may be necessary."

Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

"Intensive nutritional therapy is necessary, especially in elderly people, to correct dietary deficiencies created by large losses of protein, vitamins and other nutrients."

Riccitelli, M. L.: J. Am. Geriatrics Soc. *12*:489 (May) 1964.

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*Conjugated estrogens-equine (Premarin®)	0.25 mg.
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Cyanocobalamin	2.5 mcg.
Intrinsic factor concentrate	8.0 mg.
Thiamine mononitrate	10.0 mg.
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WARNING: Some patients with pernicious anemia may not respond to treatment with the Tablets or Capsules, nor is cessation of response predictable. Periodic examinations and laboratory studies of pernicious anemia patients are essential and recommended.

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Precautions: BAMADEX SEQUELS should be given only under close supervision to patients hypersensitive to sympathomimetic drugs, with cardiovascular or coronary disease or who are severely hypertensive; to emotionally unstable persons and to epileptics. Patients should be cautioned not to drink alcoholic beverages while on the drug, and not to drive vehicles if they become drowsy. In all patients kept on the drug for long periods, the drug should be withdrawn gradually to avoid possible serious reactions.

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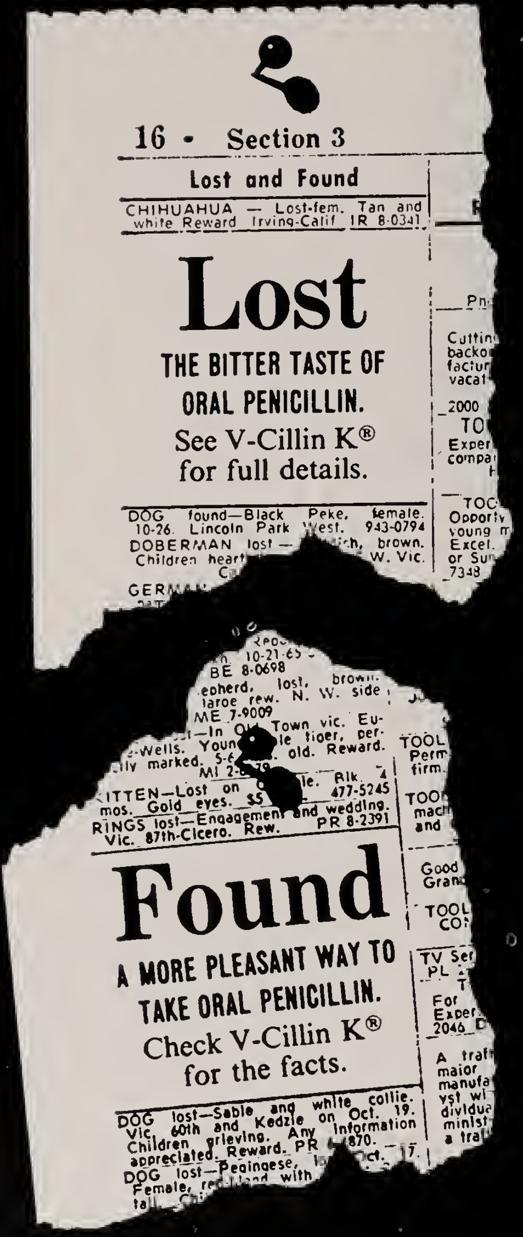

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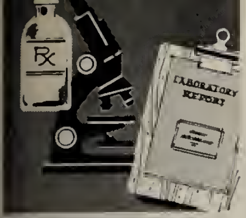

ORIGINAL PAPERS

Blunt Trauma to the Liver

Reports from the literature, and experiences at Chestnut Hill Hospital, delineate the management of nonpenetrating hepatic injury cases

DRS. JOSEPH W. STAYMAN, ROBERT N. SWARTLEY,
EUGENE P. HUGHES, AND EDWARD D. McLAUGHLIN
Philadelphia, Pennsylvania

Blunt trauma to the liver from a nonpenetrating external blow to the abdomen or to the thoracoabdominal region, is a surgical entity to test diagnostic skill and clinical acumen. Although the number of such injuries resulting from moving-vehicle accidents will undoubtedly continue to increase, one should also remain aware that seemingly innocuous nonpenetrating abdominal injuries may also cause blunt trauma to the liver.

Most published reports of liver trauma combine the penetrating type of injury caused by stab or shotgun wounds, or wounds from high-velocity missiles, with the nonpenetrating or blunt types of liver injury. An analysis of seven reports published within the past ten years indicates that in 1,689 collected cases encountered in civilian practice, only 245 (14.5 percent) resulted from nonpenetrating abdominal trauma (Table 1). Blunt trauma differs in many respects from penetrating trauma, however—although the end result (liver injury), is the same, regardless of the mode of injury.

■ *At Chestnut Hill Hospital, Dr. Stayman is director of surgery, and Drs. Swartley and Hughes, senior associate surgeons. At Jefferson Medical College, Dr. Stayman is assistant professor of surgery, and Drs. Swartley and Hughes, instructors in surgery. Dr. McLaughlin, a resident in surgery at Jefferson Medical College, is a Fellow in Surgery at Massachusetts General Hospital. Drs. Stayman, Swartley, and Hughes reside and conduct practices in the Chestnut Hill area of Philadelphia.*

Although established surgical principles dictate that the patient with a penetrating abdominal wound is a candidate for prompt exploratory laparotomy, one must be aware in evaluating such a patient that blunt injury to the liver may not immediately show signs and symptoms. It may be associated with delayed rupture of a subcapsular hematoma, or it may first manifest itself in the form of bleeding into the gastrointestinal tract from hemobilia. Nevertheless, blunt liver trauma is an equally serious surgical emergency demanding exploratory laparotomy.

This entity's seriousness is attested to by its associated mortality rate: when the liver has been the only organ affected by blunt trauma, the reported mortality rate has ranged between 9 and 13 percent.[1, 15] When the liver and other abdominal organs have been thus injured, the reported mortality rate has ranged between 26 and 38 percent.[4, 9, 15]

Material for Present Study

From 1957 through 1964, only five patients with blunt liver trauma were admitted to the general surgical service of the Chestnut Hill Hospital, an incidence attesting to the relative infrequency of this clinical entity. In each instance, the injury resulted from a nonpenetrating blow or force—in two instances, by moving vehicles, in the other three, due to falls. Three of the patients were children, two were adults; none was intoxicated at the time of injury, and on admission, all were conscious and none in shock (Table 2).

The three patients whose injuries resulted from falls sustained no concomitant injuries. The two patients injured by moving vehicles had additional injuries—one, abrasions of the chin and right thigh, the other, contusion of the left chest with fractures of the left fourth, fifth, sixth, ninth, and tenth ribs, plus a fracture of the left radius (Table 2).

On admission to the emergency unit, four patients had positive findings on abdominal examination. One had generalized abdominal tenderness, muscle guarding, and rigidity. In two patients, positive abdominal findings were limited to the right upper quadrant, and no abnormal masses were palpated. One patient's positive findings were limited to the left upper quadrant, with an abnormal mass palpable in that area. At admission, the patient with fractures of ribs and radius revealed no positive abdominal physical findings (Table 2).

Clinical findings in all five cases established an indication for exploratory laparotomy. In four patients, diagnoses could be made promptly; each abdominal examination made at the time of their emergency admissions, compared with subsequent abdominal examinations, revealed increased degrees and severity of clinical findings. There were no significant changes in hemoglobin and hematocrit levels, abdominal x-ray studies were negative for evidence of free air or alteration in the contour of the diaphragm, and chest x-rays were not abnormal. Each of the four patients was operated on shortly after admission (Table 3).

TABLE I

Incidence of Blunt Liver Trauma In Reported Cases of Liver Trauma

Authors	*Year*	*Total No. Cases Liver Trauma*	*No. Cases Blunt Liver Trauma*	*% Blunt Trauma*
Sparkman, Fogelman	1954	100	8	8 %
Mikesky et al	1956	300	24	8 %
Amerson, Blair	1959	189	22	11.6%
Crosthwait et al	1962	640	67	10.5%
Shaftan	1963	111	38	34 %
Longmire	1964	90	55	61 %
McClelland, Shires	1965	259	31	12 %
		1689	245	14.5%

The patient who sustained blunt trauma to the thoracoabdominal region with left chest contusion and left hemithoracic rib fractures and subcutaneous emphysema, did not on admission nor during his first twelve days of hospitalization exhibit positive physical findings on abdominal examination. There was no evidence of alteration in the diaphragm's contours, nor of free air within the peritoneal cavity.

This patient vividly demonstrated, however, the treacherous nature of blunt trauma to the liver, particularly when it results in a rupture of the liver substance, vessels, and bile channels deep within the organ.[21, 22, 25] On the thirteenth hospital day, the patient developed melena, lowered blood pressure, and altered hemoglobin and hematocrit levels. Blood replacement was required, and positive abdominal findings were present for the first time. Attempting to clarify the origin of the bleeding into the gastrointestinal tract, we performed an upper gastrointestinal series; ulceration of the stomach or duodenum could not be demonstrated.

Indications for exploratory laparotomy in this patient were: the sudden development of positive physical findings on abdominal examination, and the onset of melena, necessitating blood replacement.

Surgical Treatment

At laparotomy, three of the four patients with hemoperitoneum had one or more lacerations of the liver; one of the three also exhibited edema and ecchymosis of the pancreas. The fourth patient had a subcapsular hematoma of the right lobe of the liver; the hemoperitoneum resulted from rupture of a subcapsular splenic hematoma. The patient without hemoperitoneum had a massive subcapsular hematoma of the right lobe of the liver.

Two of the five patients had sustained trauma not only to the liver, but also to other intraabdominal organs (Table 3). The hemoperitoneum was evacuated, and the site of bleeding into the peritoneal cavity was established. In one patient, bleeding from the liver was controlled by applying pressure and using a gelfoam pack. In two patients, it was controlled, and the margins of the defect

TABLE II

Clinical Status on Admission

Case No.	*Age*	*Sex*	*Mode of Injury*	*Condition of Patient on Admission*			*Other Injuries*	*Abdominal Examination*
				Conscious	*In Shock*	*Intoxicated*		
31185C	49	M	Driving truck which hit a lamp post; steering wheel struck thoracoabdominal region.	Yes	No	No	Contusion of l. chest; fracture l. ribs 4, 5, 6, 9, 10, fracture l. radius.	Absence of abdominal distention, pain, and tenderness. No muscle guarding, l. lobe of liver palpated.
39259B	9	M	Fell approximately 3 feet from wall, striking abdomen.	Yes	No	No	None	Pain and tenderness, muscle guarding in r. upper quadrant.
52238B	5	M	Struck by slowly moving truck.	Yes	No	No	Abrasions, chin and right thigh.	Generalized abdominal tenderness, muscle guarding, and rigidity.
83985B	6	M	Fell from bicycle, handlebar striking upper abdomen.	Yes	No	No	None	Pain and tenderness, with muscle guarding r. upper quadrant.
96523B	31	F	Fell on stairs, striking abdomen.	Yes	No	No	None	Pain, tenderness, and palpable mass in l. upper quadrant.

were closed with interrupted sutures of chromic catgut. In the other patient with hemoperitoneum, a splenectomy was performed—because of delayed rupture of a subcapsular splenic hematoma—and a concomitant subcapsular hematoma of the liver was incised and evacuated.

One patient did not have hemoperitoneum, but did have a massive subcapsular hematoma of the right lobe of the liver, which was evacuated by incising Glisson's capsule. The edges of the defect of the liver substance were approximated, and the bleeding sites which produced the hematoma were controlled by use of interrupted sutures of chromic catgut. In one patient early in this series whose bleeding was controlled by means of pressure applied to a superficial defect of the liver substance, a drain was not inserted; in all other patients, we used one or more drains to establish a route of drainage from the site of the liver injury to the exterior (Table 3).

Postoperative Courses

There was no mortality in this group of five patients, in four of whom there were no postoperative complications. The three children were discharged on the ninth, tenth, and thirteenth postoperative days, respectively. One adult was discharged on the twenty-eighth postoperative day.

The other adult, discharged on the fifteenth day following laparotomy, was seen on the twenty-second postoperative day, and found to have a low-grade fever, with tenderness at the incisional site. Within the ensuing twenty-four hours, a small amount of clear fluid spontaneously drained from the incisional site; bacteriological culture of this fluid revealed no aerobic nor anaerobic organisms. The low-grade fever subsided after the drainage.

Discussion

Establishment of the diagnosis, institution of proper preoperative supportative therapy, and use of appropriate surgical procedures and techniques are mandatory in the management of the patient with blunt trauma to the liver, and should result in a decreased incidence of complications, morbidity, and mortality.[7, 8, 10, 11, 13, 14, 17, 23] Nonpenetrating injury to the lower thorax, the abdomen, or the thoracoabdominal region—with or without concomitant injuries—warrants thorough examination and evaluation.

Because there are no symptoms or signs pathognomonic of this condition, the clinician has a problem in differential diagnosis, but several parameters exist which, when evaluated and compared, will aid him. Abdominal pain is a common denominator in liver injuries; it may be generalized, or it may be referred to either upper quadrant; it may be severe at the time of the initial examination, or may begin moderately and increase as time elapses; a change in its distribution

TABLE III

Surgical Treatment

Case No.	*Indications/ Laparotomy*	*Findings at Laparotomy*	*Surgical Procedure*	*Drains*	*Complications*	*Discharge Da. Postop.*
31185C	Blood pressure fall requiring transfusion, & melena, 13 da. postadm.	Subcaps. rupture w. subcaps. hematoma—r. lobe of liver; delayed rupture/ subcaps. splenic hematoma. Hemoperitoneum.	Incision & drainage, subcaps. hematoma, r. lobe of liver. Splenectomy.	Yes	None	28
39259B	Increasing r. upper quadrant pain, tenderness; muscle guarding.	Laceration of lateral superior surface, r. lobe of liver. Hemoperitoneum.	Control of bleeding from laceration, by pressure & gelfoam pack.	No	None	13
52238B	Increasing abdominal rigidity; guarding without localization.	Three lacerations of liver: 1 of anterior, 1 of lateral surface of r. lobe; 1 of quadrate lobe completely evulsing portion of quadrate lobe from remainder of liver. Edema & ecchymosis of pancreas. Hemoperitoneum.	Suture of all lacerations of liver w. chromic catgut.	Yes	None	10
83985B	Increasing severity of pain & tenderness, w. guarding, r. upper quadrant. Palpable mass, r. upper quadrant.	Subcaps. hematoma, r. lobe of liver.	Evacuation of hematoma. Suture laceration of liver w. chromic catgut.	Yes	None	9
96523B	Increasing severity of pain & tenderness, l. upper quadrant.	Hematoma involving entire anterior & superior surfaces of l. lobe of liver, w. rupture of liver capsule. Evulsion of triangular ligation of liver from diaphragm. Hemoperitoneum.	Suture ligation to control bleeding of triangular ligament. Suture laceration of liver w. chromic catgut.	Yes	Fever, 7 da. post-discharge	15

and severity may be due to an increased blood and/or bile volume within the peritoneal cavity, or increased volume of a subcapsular hematoma.

Changes in peristalsis may occur, following liver damage; absence of peristalsis, with abdominal distention, usually indicates massive hemoperitoneum. However, there may be *no* changes in peristalsis when the liver is injured—particularly if the injury results in a subcapsular hematoma without hemoperitoneum or bile leakage. Tachycardia, pallor, lowered blood pressure, and poor distention of the dorsal veins of the dependent hand indicate blood loss. Hidden hemorrhage into the peritoneal cavity, or beneath the capsule of the liver, is difficult to quantitate, and is the usual cause of hypovolemic shock in patients with liver trauma.

A high clinical index of suspected liver injury, combined with certain diagnostic aids, should assist in establishing this diagnosis. If the patient's clinical status is not too grave, x-ray examination of the abdomen for evidence of free air in the peritoneal cavity from a concomitant rupture of a hollow viscus, and chest examination with emphasis on the position and contour of the diaphragm, are indicated. Although not highly valuable in demonstrating liver injuries, x-ray studies may help diagnose rupture of the diaphragm, with possible concomitant liver injury.

Abdominal Tap

In liver injuries giving rise to hemoperitoneum, the "four-quadrant abdominal tap" may be valuable.[5, 6] A negative finding must be considered insignificant, however, and in instances of liver trauma with subcapsular hematoma, the procedure has no value. If initial examination and evaluation of the patient do not establish the diagnosis, periodic repetitive studies must be done. In the interim, one should be prepared to treat hypovolemic shock, and the patient should be prepared as a possible candidate for exploratory laparotomy.

We recommend using polyethylene catheters or plastic needles to establish at least two routes for intravenous administration of blood, plasma, or plasma expanders. When catheters or needles are inserted, a blood sample should be taken for cross-matching of donor-bank blood. We recommend inserting a Foley catheter and a nasogastric tube, to insure thorough emptying of bladder and stomach, respectively.

Although the use of antibiotics in the supportative stage of therapy is not firmly established, administration of penicillin and/or tetracyclines has been advocated.[2, 12]

The definitive treatment is surgical; a very high mortality rate is associated with nonoperative modalities of treatment, mortality rates of from 62 to 95 percent having been reported.[2, 10, 12, 18]

Guiding Principles

The type of injury and the presence or absence of active bleeding will influence the specific measures for repair of the damaged liver, but in all cases, these specific principles must be observed: (1) control of hemorrhage; (2) removal of all devitalized tissue; (3) biliary decompression when the drainage of bile from the raw liver surface is anticipated, when resection of liver tissue is required, or when there is concomitant injury to the extrahepatic biliary system; and (4) establishment of adequate external drainage.[12, 16, 19]

Hemorrhage from the liver may be controlled by means of several measures, depending on the severity of bleeding. If it is massive, intermittent afferent vascular occlusion may be done, while measures are instituted to locate the exact site and control the bleeding—but the time of each occlusion probably should not exceed 10-15 minutes. In certain instances, individual ligature of vessels that have been divided provides the most satisfactory control of hemorrhage; in others, closure of the liver defect by means of deeply-placed sutures may effect control. (We condemn the use of gauze packs for definitive control of hemorrhage.) Certain absorbable hemostatic materials may be used in control of hemorrhage from the hepatic surface such as that which follows unroofing of a subcapsular hematoma. These materials should be avoided, however, when the liver defect is large and/or deep, and they should never be substituted for other methods we have mentioned.

All devitalized liver tissue and all detached liver fragments must be removed; such irreparably damaged liver tissue inevitably undergoes necrosis, and if not properly managed, will compound the severity of the injury and contribute to increased morbidity and mortality. Byrd, Longmire, McClelland, and Poulos describe techniques they have developed for surgical resection of massive amounts of devitalized liver tissue.[3, 9, 15, 20]

Biliary decompression in cases in which it is indicated may be accomplished either by cholecystostomy or by T-tube drainage of the common bile duct. Although either method of drainage has been found acceptable in adults, cholecystostomy is preferable in children, since it involves less danger of damage to the small common bile duct.[12, 16, 19]

When one deals with liver injuries, he should apply the axiom, "Always drain and never be in doubt." In *all* liver injury cases, adequate external gravity drainage should be established; in cases where it has not been, increased incidences of postoperative morbidity and mortality have been reported.[2, 18, 23] Several soft rubber drains should be used, placed adjacent to the site of liver injury and/or about the liver; in instances of severe injury, the subhepatic and subphrenic spaces should be drained to prevent the pooling of bile and exudate in these locations. In instances where passive gravity drainage via soft rubber drains has been deemed inadequate, the use of "sump" drains has been advocated—particularly with concomitant injury to the biliary tract, or following resection of devitalized liver tissue.[2, 18, 23]

Postoperative Complications

Major postoperative complications associated with liver injury include: (1) infection; (2) hemorrhage; and (3) complications such as peritonitis, fistulas, and traumatic cysts resulting from the leakage or inadequate drainage of bile. Most complications are related to infection, liver necrosis, or improper therapy in the definitive treatment of the initial liver injury.

Infection may be (1) localized to the abdominal incisional wound; (2) localized adjacent to the liver substance, giving rise to subphrenic or subhepatic abscesses; or (3) diffuse, resulting in generalized sepsis and septicemic shock. Delayed hemorrhage following initial surgical therapy may be extrahepatic, producing a hemoperitoneum, or it may be intrahepatic, producing hemobilia. In any instance of delayed hemorrhage, an evaluation of the patient's clotting mechanism is mandatory. Delayed extrahepatic hemorrhage usually necessitates a second surgical procedure.

Spencer has described techniques to demonstrate delayed intrahepatic hemorrhage. Surgical procedures are usually required for control of this complication.[24]

Biliary Leakage

The irritating effects of bile upon the peritoneum may be manifest postoperatively, should bile leakage from the injury site persist, or should the ligation of divided biliary radicals prove inadequate. Biliary fistulas may occur when injuries to the extrahepatic biliary tract are inadaquately treated, or when the biliary tract is not decompressed when there has been deep injury to the liver substance. Bile-containing postoperative hepatic cysts may develop when defects of the liver substance are securely closed without concomitant biliary decompression. Complications following initial surgical treatment related to the biliary system usually necessitate a second surgical procedure in order to be corrected.

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Powwow in Pennsylvania

Folk medicine is not limited to underdeveloped countries nor to the past. Its 'white magic' is still practiced in many commonwealth areas

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Sickness has been among the slings and arrows of man's "outrageous fortune" all through history, but within almost every society there have been individuals who assumed major responsibility for treating disease. A physician's medical education acquaints him with some of the magical approaches to medical treatment, and many of the inexplicable apparent "cures" effected by folk doctors and weavers of "spells"—that make up the varied history of men's attempts to combat illness.

Even in the face of today's authenticated medical knowledge, probably a large portion of the world's population turns to practitioners of folk medicine who use methods based on ancient beliefs about natural and supernatural forces. Mankind's perplexing ills have given rise to explanations involving malevolent spirits, ghosts of dead relatives or enemies, and magic or sorcery practiced by the living. The folk medicine "cures," like those which modern conventional medicine strives for, involve the use of measures deemed sufficiently potent to reduce the effect of an inimical "agent." Treatment methods ordinarily follow quite logically the indications inherent in the perceived nature of the affliction.

In some sections of Pennsylvania a lively belief still exists in the traditional or folk medicine, "powwow." This term is not related to a gathering of American Indians, but refers, rather, to a set of beliefs about the nature of illness and certain rituals for its amelioration or cure. Powwow "practitioners" are known as powwowers, or powwow doctors; people treated are said to be "powwowed," or "tried for."

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ARMAMENTARIUM—Basic to powwowing are the Holy Bible, cut sections of a raw potato, a silk thread, and a basin of water. The powwow practitioner, after using special phrases and motions to "draw out" the affliction, washes his hands to rid himself of the disease, which, in the process of exorcism, he has "absorbed into his own body."

We encountered this term at a state mental hospital, a number of patients having been powwowed in connection with relatives' efforts to stave off developing psychoses. Since powwowers have no organization and no committee-sanctioned standard nomenclature, their procedures and terminologies vary. They share, however, certain concepts regarding illness, and a concensus as to the types of illnesses with which a powwower can deal.

We undertook research to determine the present status of powwow, and to gain a picture of the belief systems of people seeking or providing this form of treatment. According to observations, less-well-educated psychiatric patients are largely refractory to psychotherapeutic efforts, responding more favorably to chemotherapy. This may be due to the failure of highly verbal techniques to relate to the patient's view of the world and of his illness. Although powwow has had no documented success with the mentally ill, an understanding of this treatment system may help clarify the modes of thought of a rather inarticulate segment of the population, since the treatment system springs from the ethnic group's belief system, without formal institutional direction or support.

Background

Powwowing in Pennsylvania apparently has German and English origins. In 1820 Hohman published a book in German which offered instructions for treating specific illnesses, plus some helpful household hints—and for good measure, a few curses. This highly popular book was reprinted several times, an 1856 English translation of it also proving popular.[1] In 1915, Fogel tabulated the superstitions of the Pennsylvania Germans, including many beliefs having to do with *Brauche* (usage, or use), which he translated "powwow." [2] Brendle and Unger in 1935 discussed the beliefs of the same people,[3] tracing Hohman's sources back to a work by Bargis published in 1794. They also speculated that some of the *Brauche* or powwow may be traced to Albertus Magnus in the thirteenth century. A Pennsylvania folklorist, Kauffman, has speculated that powwow may be linked to Paracelsus (1493-1541).[4]

Randolph has described "power doctors" in the Ozarks among relatively isolated peoples of English and Scottish descent who inhabited the Southern Appalachians and then moved to Missouri and Arkansas.[5] The similarity of name and of many remedies may be evidence of the British origin of powwowing.

The early settlers' interest in the Indian medicine man is another indication of our not-too-remote eagerness for remedies with supernatural capabilities.

No matter where powwowing originated, we should recognize that some form of folk medicine is invariably present where modern science has not penetrated, but also that the old and new can exist side by side, as our data will suggest.

Although Pennsylvania is a pioneer and leader in standard medicine, many of its people still follow a primitive kind of "medical practice."

Research Method

An announcement of this study was distributed to Pennsylvania newspapers by the public relations office of The Pennsylvania State University. Articles subsequently appeared in newspapers, and readers who knew about powwowing were invited to contact the investigator. This elicited more than sixty letters, and six telephone calls—unfortunately, mostly from persons who had been treated but who had no current information. Eight of the respondents wanted the name and address of the closest powwower since they felt they needed his services! Of these eight, five were suffering from skin disorders, two had psychiatric complaints, and one had troubles the nature of which he did not share with us. These contacts led in turn to a number of active powwowers, five of whom were willing to discuss their methods and beliefs.

Results

The men and women powwowers interviewed had certain characteristics in common: they were past middle age, lived in rural surroundings, and belonged to lower income groups; their homes, although clean, were old and needed paint and repairs; their patients probably came from backgrounds similar to theirs, similarly limited educationally and economically.

We found about as many men as women among active powwowers. We were surprised that in spite of favorable editorial comments on our project in the Pennsylvania Dutch areas of the state, we received no responses from those sections. Former residents of these areas indicated that probably a good deal of powwowing is still done there, which leads us to believe that patterns of reticence and/or fear of censure discouraged present residents from responding to our appeal. Whatever the case, we acknowledge that our sampling is not representative of all powwow doctors in the state.

'Syndromes' Treated

Powwowers commonly treat these five categories of illness: "decline," "livergrow'd," bleeding, skin disorders, and warts. Decline (with the accent on the first syllable), is a condition believed to affect children under three years of age. It is characterized by inability to benefit from nourishment, by loss of weight, and by increasing weakness. It is also referred to as "waste-away," "waste of life," and "take-off."

Livergrow'd is an abdominal pain believed caused by the liver growing into and fusing with adjacent organs. The condition was said to arise after a child had been shaken or jostled for long periods of time, as happened when horse-drawn carriages were still in use.

Bleeding, from any cause, was considered a condition which would respond to the powwower's ministrations. Skin disorders and warts were regarded as separate categories for powwow treatment. There was considerable specialization among our respondents, no one considering himself equally effective in treating all disorders.

Decline, or failure of the child to grow as expected, could according to one informant be diagnosed by measuring the foot and the body with a string; the latter was expected to be nine times the length of the former. Treatment involved special prayers with the string tied around the child's waist. Other powwowers formed the string into a loop and passed the child through the loop while repeating a prayer. This treatment might be repeated on three successive days, or in severe cases, three sets of three days each. Bayard has observed that passing sick people through an opening has a long history in Britain as a ritual symbolic of birth.[6] Holes in large stones, and horse collars, have also been used.

Our informants mentioned livergrow'd less frequently than decline. For those who did "try for" this condition, treatment involved repeating three times the following phrases: "Heartbreak and livergrow'd, soften from ————'s ribs. In the name of the Father, Son, and Holy Ghost, Amen." At the same time the child's ribs were rubbed with hot camphorated oil. (Here we have a mixture of folk *religion* and the treatment of disease.)

One informant described a general method which she used to treat most ailments. She stroked the affected area of the patient's body, drawing her hand away from the patient's heart. At the same time she repeated, "Lord, take this sickness from my brother ————'s body. I do believe that the Lord will do this." She then rinsed her hands in a basin of water and dried them on a towel in the belief that the rinsing left the sickness in the water. This sequence was repeated three times "for the Father, Son, and Holy Ghost." She felt that this procedure should never be done before seven in the evening, "because there are seven days in the week."

Bleeding, apparently regardless of the cause, was treated with whatever incantations a particular powwower favored. These included the sixth verse of the sixteenth chapter of Ezekiel, "And when I passed by thee and saw thee polluted in thine own blood, I said unto thee when thou wast in thy blood, Live; yea I said unto thee when thou wast in thy blood, Live." One woman felt that anyone who was bleeding could treat himself in this way. Another felt that bleeding could be stopped by saying: "Jesus Christ, dearest blood that stoppeth the blood, may this help you (patient's first name). In the name of the Father, Son, and Holy Ghost, Amen." There were many other magic formulas. Appropriately, since bleeding frequently indicates an emergency, it was felt that so long as the powwower knew the name of the person in difficulty, bleeding could be treated from afar.

There is a rather uncertain group of skin disorders including birthmarks, burns, erysipelas, and stings, all of which, although markedly different in origin, may be treated by similar methods. One informant suggested these could be helped by looping a red silk thread around the affected area of the body and then drawing it away from the heart, repeating "the three holiest words." This treatment had to be repeated three times, a few minutes elapsing between each two treatments. The powwower then blows on the affected area.

Certainly the problem for which powwowing is best known is warts. Even a modern physician might be sorely tempted to encourage a pateint to seek a powwower's help for this nuisance, although he would most likely be reluctant to do a little powwowing on his own. The remedies are not new. A common one involved cutting a potato in three pieces, rubbing a wart with a section on each of three successive evenings and burying the used section each time, the three sections symbolizing the Trinity. For as little as a penny each, another powwower bought the warts from his patients. Still another method involved tying a string around the wart while the afflicted person repeated a prayer. And, as the rural auction expression has it, there were "others too numerous to mention."

Finally, a number of powwowers also undertake to treat sick animals. A cow that for no apparent reason has gone dry, or a horse that has sustained a cut, are examples of candidates for this treatment method. In such cases it was essential that the owner *believe in* the efficacy of the cure. Treatment ordinarily involved reading certain verses of scripture and repeating set phrases. It did not involve the use of red thread or the laying on of hands.

Other Magic

The beliefs we have been discussing merge imperceptibly with other practices of magic. Powwowing is "white" or "good" magic, designed to help. There is also "black magic," or sorcery, which is much less frequent (although belief in it apparently did lead to a murder in southern Pennsylvania earlier in this century). We were told that those who practice black magic are able to bring sickness or misfortunes on others. We occasionally encountered fear-laden references to the *Seventh Book of Moses,* reported to contain the secrets of the black art. In this almost vanished tradition of retaliatory hexing after one has been hexed, one reads (backwards), selected passages from the *Seventh Book* in order to counter the effects of another's sorcery. Those few who retain these beliefs report that the book and related practices were brought from Europe. Our powwowers earnestly denied using black methods, however, expressing strong disapproval and fear of anyone who would. There is an interesting account of black magic in *The House of the Black Ring,* a 1905 novel written by a central Pennsylvanian, Frederick Lewis Pattee.

Discussion

An examination of these beliefs and practices sheds light on the indigenous concepts of illness. Sickness is not viewed as a condition caused by microorganisms; it is rather a thing which enters the body and leaves it. Some powwowers think of themselves as taking sickness into their own bodies and then throwing it off later. Thus the powwower who has treated a sore shoulder may have a sore shoulder himself after the treatments. These people, as might be expected, become reluctant to practice when they themselves are feeling weak due to sickness or, as in the case of one of our informants, advancing age. Other powwowers do not take the sickness into their own bodies, but rather bury it, wash it off, or throw it away.

Failures are neither a reflection on the ability of the powwower nor a disconfirmation of the system, since there are many conditions which must be met. For instance, the patient (and sometimes all of his relatives), must believe strongly in the treatment method. Other factors which may affect the outcome are the necessity of repeating the treatment at specified intervals, and a given powwower's inability to treat certain illnesses. With no guarantee of success, there is a general tentativeness characterized by the expression, "I will try for him," and the feeling that it is really the Lord who cures, not the powwower.

Why do people become powwowers? Many express the desire to help others, a longing which prompts them to put forth the effort and concentration entailed. At the same time they expect some compensation, but apparently they have no fee schedules. As one powwower put it, "I expect them to leave something and if it isn't enough I won't try for them again!"

With no standardization, there is great variation in terminology and practice from one community to another, and no two powwowers function the same. The rituals are learned by word of mouth. We believe that most of our respondents came to believe in powwowing when they were young. Some believed that instruction must always cross sexes while others were willing to teach members of their own sex. One woman solved the problem of teaching her daughter by teaching the stove while her daughter listened. But there seem to be fewer novitiates now. As one old man lamented, "I want to teach my grandson but he's too busy studying nuclear engineering." Once we had gained the confidence of our informants, they were willing to teach us the treatment techniques. They like to help people and they want others to be able to help, too.

For the most part powwowers are fearful of the medical profession. They see their work not as a competing treatment system but as a different approach that physicians sometimes do not understand. One powwower said she went to visit sick friends in the hospital to "try for" them. Although some physicians tried to prevent her efforts, others were more permissive. (Since one can powwow from a distance, it is not always imperative to visit the hospitalized patient.)

One of the authors in a foolish moment declined an offer of powwowing while he was in a hospital. On that occasion, another patient volunteered to arrange treatment by a powwower some ten miles away.

One of our respondents longed for a sort of clinic arrangement where he could see those who sought his services without fear of legal action from the licensed profession. A few report that they believe that some doctors understand them and appreciate their efforts; but we have no indication of referrals!

While the powwowers make extensive use of the scriptures, they do not see their practice as an expression of religious liberty. They believe in powwowing because many of their patients get well. They offer their services because they want to help people, and sometimes they seem to succeed!

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Pennsylvania's Accredited Blood Banks

Here are the names of seventy-three institutions within Pennsylvania having blood banks which have been inspected and accredited by the American Association of Blood Banks:

Abington Memorial Hospital, Abington
Albert Einstein Medical Center, Philadelphia
Allegheny General Hospital Transfusion Service, Pittsburgh
Allegheny Valley Hospital, Natrona Heights
Altoona Hospital, Altoona

Bryn Mawr Hospital, Bryn Mawr
Butler County Memorial Hospital, Butler

Carlisle Hospital, Carlisle
Central Blood Bank of Pittsburgh, Pittsburgh
Chambersburg Hospital, Chambersburg
Charleroi-Monessen Hospital, North Charleroi
Citizens General Hospital, New Kensington
Columbia Hospital, Columbia
Community General Hospital, Reading
Crozer-Chester Medical Center, Chester

Easton Hospital, Easton
Ephrata Community Hospital, Ephrata
Episcopal Hospital, Philadelphia

Frankford Hospital, Philadelphia

General Hospital of Monroe County, East Stroudsburg
Germantown Dispensary and Hospital, Philadelphia
Good Samaritan Hospital, Lebanon
Graduate Hospital of the University of Pennsylvania, Philadelphia

Hahnemann Medical College and Hospital, Philadelphia
Hamot Hospital, Erie
Harrisburg Hospital, Harrisburg
Harrisburg Polyclinic Hospital, Harrisburg
Hershey Hospital, Hershey
Holy Redeemer Hospital, Meadowbrook
Holy Spirit Hospital, Camp Hill
Homestead Hospital, Homestead
Hospital of the Woman's Medical College of Pennsylvania, Philadelphia
Hospital of the University of Pennsylvania, Philadelphia

Interstate Blood Bank, Philadelphia

Jameson Memorial Hospital, New Castle
Jeanes Hospital, Philadelphia
Jefferson Medical College Hospital Blood Transfusion Unit, Philadelphia

Lancaster General Hospital, Lancaster
Lankenau Memorial Hospital, Philadelphia
Lower Bucks County Hospital, Bristol

McKeesport Hospital, McKeesport
Memorial Hospital of Chester County, West Chester
Memorial Hospital, Pottstown
Mercy Hospital, Altoona
Mercy Hospital, Pittsburgh
Methodist Hospital, Philadelphia

Nazareth Hospital, Philadelphia
Northeastern Hospital, Philadelphia

Oil City Hospital, Oil City

Pennsylvania Hospital, Philadelphia
Philadelphia General Hospital, Philadelphia
Phoenixville Hospital, Phoenixville
Pottsville Hospital, Pottsville
Presbyterian-University of Pennsylvania Medical Center, Philadelphia

Reading Hospital, West Reading
Robert Packer Hospital, Sayre

Sacred Heart Hospital, Norristown
St. Francis Hospital, New Castle
St. Joseph Hospital, Hazleton
St. Joseph Hospital, Lancaster
St. Joseph's Hospital, Reading
St. Vincent Hospital, Erie
Sewickley Valley Hospital, Sewickley
Sharon General Hospital, Sharon
South Side Hospital, Pittsburgh
Suburban General Hospital, Pittsburgh

Temple University Hospital, Philadelphia
Thomas M. Fitzgerald-Mercy Hospital, Darby

U.S. Naval Hospital, Philadelphia

Valley Forge General Hospital, Phoenixville

Western Pennsylvania Hospital, Pittsburgh
Williamsport Hospital, Williamsport

York Hospital, York

■ This list was verified by the American Association of Blood Banks on February 22, 1966.

Cardiovascular Briefs

Public Health Aspects of Heart Disease

PART I

When should a clinician feel that a patient presents a special risk of developing coronary artery disease?

When there is a history of myocardial infarction in one or both parents, especially before age sixty, and/or in the presence of overweight, hypertension, hypercholesterolemia, diabetes, angina pectoris, or electrocardiographic findings suggestive of abnormalities. Suspicion is heightened when more than one of these is present, especially in cigarette smokers.

Is it inevitable that one whose parents died of coronary artery disease will have a similar fate?

No, for there is a hopeful, preventive approach. The earlier this is applied, the more favorable the outlook. Weight control is its keystone; exercise its underpinning.

Do you recommend drastic weight reduction for obese patients?

No, especially not periods of fasting. Such patients should be counselled to realize that markedly overweight people have twice as high a risk of coronary artery disease as those at or below average weight. Also, overweight increases the risk of hypertension and diabetes which are, in themselves, serious and also increase the risk of cardiac disease. This knowledge should motivate patients to cooperate in gradual, steady weight reduction. A proper diet, conscientiously followed, becomes a habit. Too severe or "crash" diets are often followed by a gradual resumption of earlier faulty eating, with the result that weight lost is quickly regained.

What type of diet do you recommend?

The most successful approach is to reduce the overall intake of calories and salt. Hypercholesterolemia is often present, and in these patients eggs are limited to occasional use; only the lean cuts of beef, lamb, and veal are recommended; pork is avoided because of its high fat content; bacon, suet, lard, and butter are reduced, with oils and nuts substituted; seafood is increased because of its low saturated fat content. Rich desserts are not allowed, but fruits and simple puddings or milk ices may be substituted. Adequate calcium is provided by skimmed milk. Supplementary vitamins are often indicated.

How important is exercise?

Quite important, not only because it removes excess weight, but because, if begun cautiously, increased gradually, and maintained routinely, the ensuing physical fitness is beneficial. Today, middle-aged Americans exercise very little. It is essential to create an awareness of this in "coronary-prone" apartment-dwellers so that they may take advantage of such meager opportunities as parking a few blocks from their destinations, walking up a flight of steps rather than taking an elevator, etc.

What about the role of diabetes in coronary artery disease?

Diabetics are definitely greater risks. It therefore behooves physicians not to await development of frank diabetes but to look for subclinical disease by the glucose tolerance test in persons with familial histories of diabetes, in those with suggestive symptoms, and in overweight adults. Early recognition and prompt control of diabetes enables clinicians to inaugurate suitable programs to prevent coronary disease.

Is an elevated cholesterol level of major prognostic significance?

It is the belief that the higher the cholesterol (above 250 mgm.), the greater the risk.

Is an abnormality of the electrocardiogram a bad omen?

Yes, but as with all objective tests, negative findings may be falsely reassuring. That is why there is currently so much increased interest in stress tests to bring out depression of the S-T segment during or after exercise. The patient should not forget the stress that results from excessive drive, perfectionism, or needless worrying. It is likely, (although not proved), that tense individuals are a greater risk.

Is hypertension hazardous if the diastolic pressure is under 95 mm.?

The risk rises steadily above 90 mm. of Hg., and is least under 80 mm.

Is smoking an important factor?

Repeated studies have correlated the increasing mortality and morbidity from coronary artery disease with increasing degrees of cigarette smoking. In the presence of one or more factors which increase risk, certainly the elimination of smoking is the first step to advise. Keeping the coronary-prone patient at a normal blood pressure level, with a normal cholesterol, at normal weight, and having him take regular exercise and refrain from smoking constitute a sound, basic preventive program.

(Part II will appear in the next issue of PENNSYLVANIA MEDICINE.*)*

• William G. Leaman, Jr., M.D., questions Katherine R. Sturgis, M.D., professor and chairman of the department of preventive medicine, Woman's Medical College of Pennsylvania, Philadelphia. Dr. Leaman, Fellow, Council of Clinical Cardiology of the American Heart Association, edited this brief for the Council on Scientific Advancement, in cooperation with the Pennsylvania Heart Association.

Blueprint for dealing with tension due to stress — Prolixin — once-a-day

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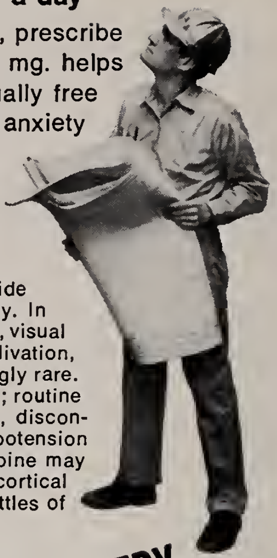
Side Effects, Precautions, Contraindications: As used for anxiety and tension, side effects are unlikely. Reversible extrapyramidal reactions may develop occasionally. In higher doses for psychotic disorders, patients may experience excessive drowsiness, visual blurring, dizziness, insomnia (rare), allergic skin reactions, nausea, anorexia, salivation, edema, perspiration, dry mouth, polyuria, hypotension. Jaundice has been exceedingly rare. Photosensitivity has not been reported. Blood dyscrasias occur with phenothiazines; routine blood counts are recommended. If symptoms of upper respiratory infection occur, discontinue the drug and institute appropriate treatment. Do not use epinephrine for hypotension which may appear in patients on large doses undergoing surgery. Effects of atropine may be potentiated. Do not use with high doses of hypnotics or in patients with subcortical brain damage. Use cautiously in convulsive disorders. **Available:** 1 mg. tablets. Bottles of 50 and 500. For full information, see Product Brief.



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Intussusception from Duodenal Lipoma

Frequently an adjunct of benign neoplasms of the small bowel, this syndrome responds well to surgery, and has an excellent prognosis

JOSEPH W. STAYMAN, JR., M.D.
ALFRED O. HEATH, M.D.
Philadelphia, Pennsylvania

Symptomatic lipomas of the small bowel are relatively uncommon. Of forty-two cases reported to date, only 15 percent were symptomatic. Because of the comparative fixation of the duodenum, intussusception from any cause is extremely rare. A review of the English literature revealed one case, reported by Knight and Black.

Case Report

The patient, a fifty-one-year-old white male, was admitted to the Chestnut Hill Hospital on September 6, 1964, with constant, sharp left upper quadrant abdominal pain of acute postprandial onset. It was accompanied by diarrhea, one episode of vomiting, and the passage of flatus. Past medical history was noncontributory. Physical examination was within normal limits, except for minimal tenderness in the epigastrium. Blood count, urinalysis, and serum amylase were normal. A scout film of the abdomen revealed a moderate amount of gas in the large and the small bowels. Upper gastrointestinal x-rays revealed nothing abnormal except a small hiatal hernia. Barium enema outlined a long, redundant left colon and a splenic flexure.

After being given Pathibamate and Maalox, the patient improved, and on September 12, 1964, he was discharged. He remained asymptomatic until November 12, 1964, when he again experienced left upper quadrant abdominal pain which increased in intensity and was associated with one episode of vomiting. Physical examination was normal except for slight tenderness in the left upper and lower quadrants of the abdomen, and a tympanitic sound to percussion. Routine laboratory studies were normal. Scout film of the abdomen (Fig. 1) revealed a large amount of fecal material throughout the colon and several distended loops of small intestine in the midportion of the abdomen, with a few inconspicuous fluid levels. Upper gastrointestinal series showed a polypoid filling defect in the distal duodenum just proximal to the ligament of Trietz (Fig. 2). A diagnosis of lipoma or leiomyoma was made.

On November 17, 1964, laparotomy was performed by means of an upper-midline incision. Exploration was negative except for a soft intraluminal tumor attached at the duodenojejunal junction. The jejunum was opened distal to the ligament of Trietz. A 3.5 cm. x 2 cm. pedunculated lipoma presented (Fig. 3). It was excised and the jejunum was closed in two layers. The postoperative course was uneventful and the patient was discharged November 27, 1964; he has been asymptomatic since that time.

Bauer (in 1757), was the first to report on intestinal lipomas. Curveilheir reported the first case of a benign duodenal tumor in 1835. The small bowel accounts for 75-80 percent of the gastrointestinal tract, yet only 3-6 percent of primary benign and malignant neoplasms occur here. In 1955, Weinberg and Feldman found 309 cases of submucous lipoma of the gastrointestinal tract in 115,251 routine autopsies, an incidence of 0.26 percent. Warren lists the incidence of duodenal lipoma as 0.5 percent of duodenal tumors. The etiology is un-

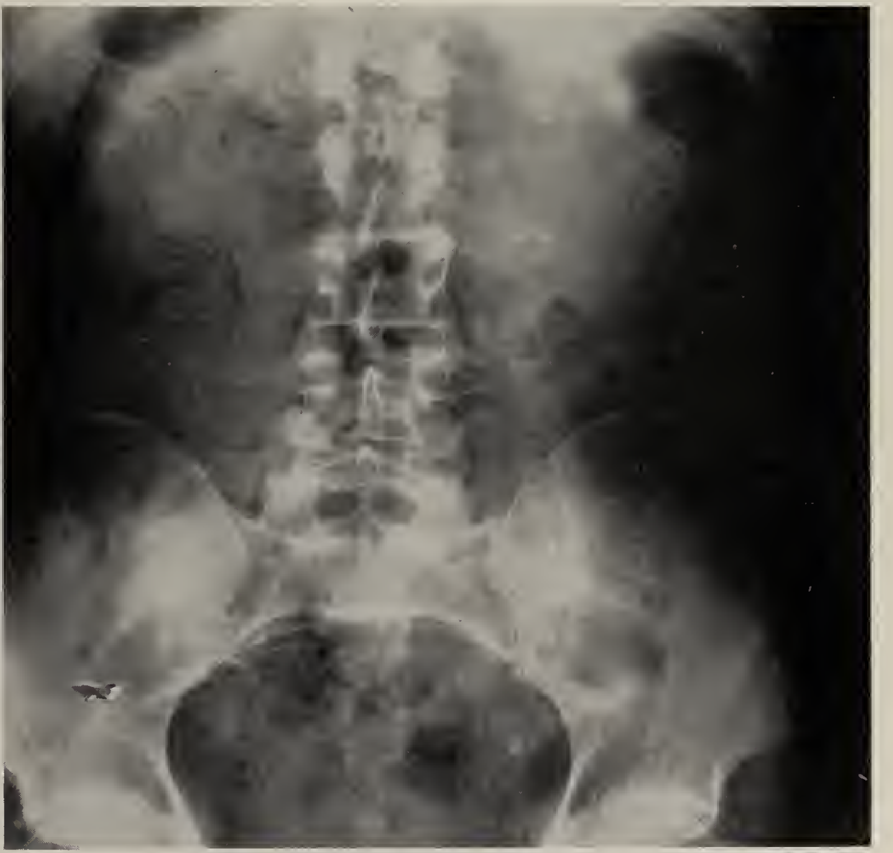

Fig. 1. Distended loops of small intestine in the midabdomen.

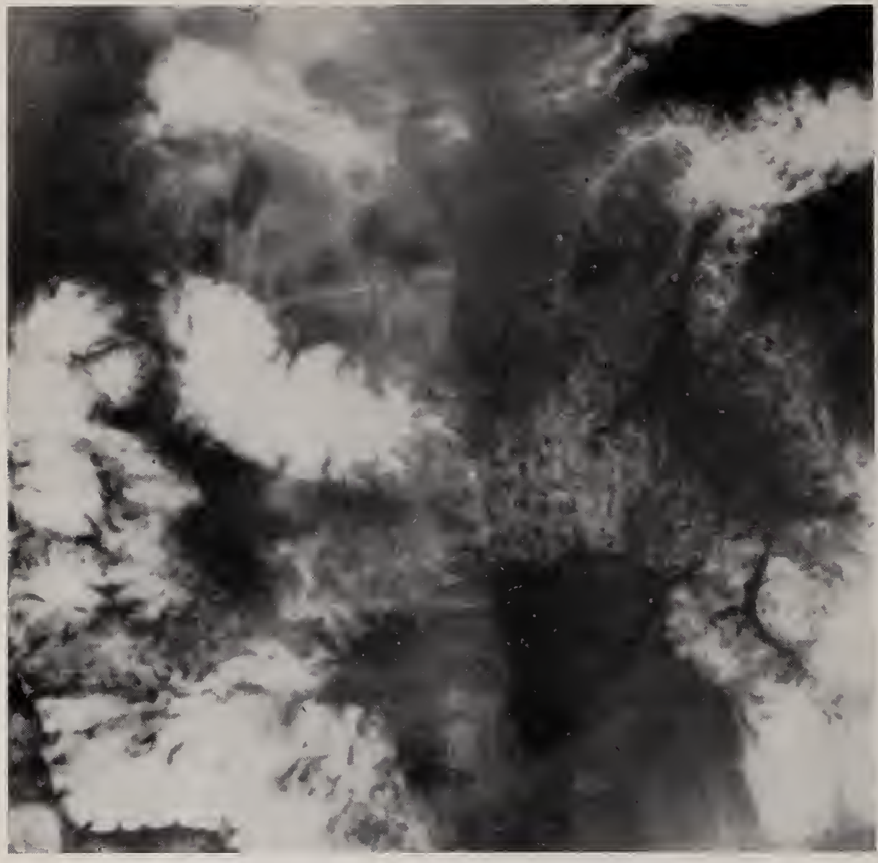

Fig. 2. Polypoid filling defect proximal to ligament of Treitz.

known; according to Ewing, congenital predisposition of the tissue is an essential factor in the origin of most lipomas. There is no predilection for sex. The majority of these lipomas occur between the third and sixth decade.

In 1861, Rokitansky described the basic pathology and clinical symptoms of duodenal lipoma. Small-bowel lipomas are well differentiated, usually solitary benign neoplasms, 1-6 cm. in diameter. Forty-two percent occur in the ileum, 33 percent in the duodenum, and 25 percent in the jejunum. They may be divided into two types: submucous (90 percent), and subserous (10 percent). The latter arise from the appendices epiploicae and tend to cause traction, torsion, and adherence to adjacent structures. The submucous type remains sessile when small, but develops a pedicle as its size increases, owing to intestinal tract mobility which exerts a pulling force on it. Some of the pedunculated submucous lipomas are shed into the lumen of the gut following necrosis of the pedicle. Forty-four percent cause intussusception in adults; others may ulcerate and cause hemorrhage.

Symptoms

The majority of these tumors are asymptomatic and are incidental findings at postmortem examinations. Pain, a cardinal symptom, is of insidious onset, cramp-like, chronic, recurrent, and usually located in the epigastrium or periumbilical area. The pain may be associated with anorexia, nausea, vomiting, or melena, but "silent" hemorrhage may be the only symptom. An acute exacerbation of pain brings the patient to the attention of the physician. Physical examination is generally unrewarding. Minimal epigastric tenderness may be elicited. Palpation of a mass is difficult if not impossible, since the duodenum is so deeply situated in the abdomen. The diagnosis preoperatively is usually made by the radiologist; recurring bouts of unexplained abdominal pain, however, should suggest the possibility of a submucosal lipoma of the gastrointestinal tract. On barium meal study, the tumor generally appears as a round or elliptical filling defect not involving the entire circumference of the bowel.

Treatment of duodenal lipoma consists of duodenotomy and excision. The prognosis is excellent.

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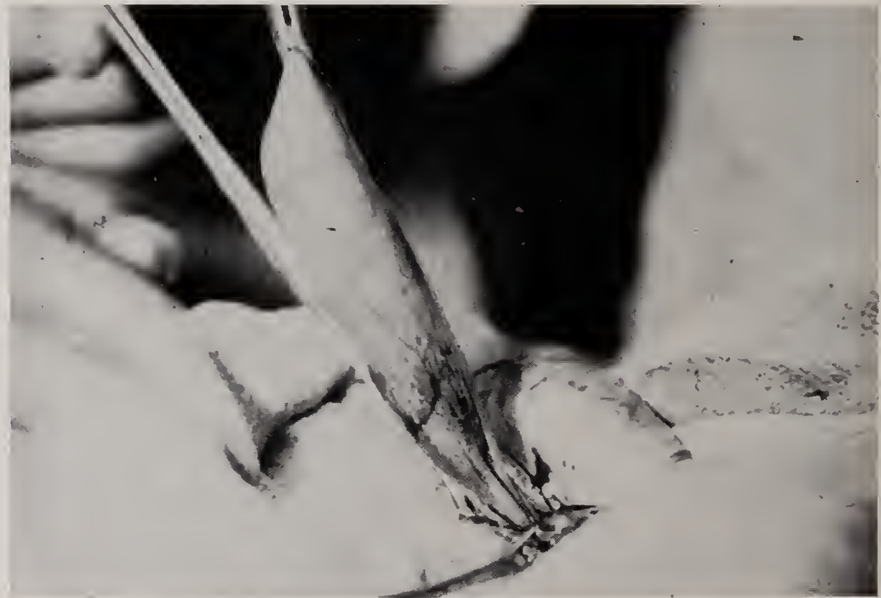

Fig. 3. The pedunculated lipoma *in situ*.

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Exposures to X-rays Up 8 Percent in Four Years

The number of Americans exposed to medical and dental x-rays increased from about 100 million in 1961 to more than 108 million in 1964, a nationwide x-ray exposure study by the Public Health Service has indicated.

The growth, which exceeds the population increase for the same period, does not reflect the increasing complexity of many medical x-ray examinations and treatments, explained Richard H. Chamberlain, M.D., Philadelphia.

At the same time, he said, "a major purpose of the study was to find out where we can improve the efficiency of x-ray usage in medicine so that maximum diagnostic value is obtained with a minimum of exposure to the patient."

Dr. Chamberlain, professor of radiology at the University of Pennsylvania and chairman of the Public Health Service medical x-ray committee, was moderator of a five-man panel which reported on the findings of the second phase of the PHS survey to the convention of the American College of Radiology.

The first PHS x-ray study conducted in 1961 was limited to x-ray visits reported in a national household survey. This showed a volume of 85.3 million medical x-ray visits, a rate per hundred persons of 47.9. In the 1964 study there were 92.9 million such visits or 49.8 per hundred persons. This change reflects an increase in abdominal examinations.

The more extensive study in 1964 revealed that 66.1 million persons received radiographic examinations, 7.8 million received fluoroscopic examinations, 45.9 million had dental x-ray examinations, and 600,000 patients received x-ray therapy. Since 11.5 million persons had more than one type of x-ray procedure, elimination of duplication leaves a total of 108 million during the year.

The number of actual exposures during an x-ray examination can vary from a single film (which accounted for 44 million radiographic procedures) to more than 30 films, plus extensive fluoroscopy to diagnose difficult problems of the heart, kidneys, or brain.

According to the findings, more than 60 percent of all the medical x-ray procedures for diagnosis or treatment were made under the supervision of radiologists.

The survey showed that nearly three-fifths (57.6 percent) of the total medical examinations were made in hospital x-ray departments. In 92 percent of America's approximately 7,000 hospitals, a radiologist is in charge of the x-ray department.

Another 26.9 percent of the medical examinations are made by radiologists and other physicians in their offices. The remaining 15.5 percent of the procedures are performed at health agencies which include chest survey units and other facilities such as industrial clinics.

Examinations of the thoracic area accounted for over half of the 105 million x-ray examinations received by 66.1 million Americans in 1964. Studies of the abdomen accounted for a fourth (24.7 percent), extremities, 17 percent, and head and neck examinations, 7.1 percent.

The 10.5 million fluoroscopic examinations done on 7.8 million Americans included abdominal procedures, amounting to 85 percent of the total, with the thorax accounting for most of the remainder.

The study results showed that white persons between the ages of 15 and 45 received the highest rate of x-ray examinations for medical and dental purposes.

After age forty-five, the use of medical x-rays tends to increase, but there is a sharp decline in the dental x-ray rate in the older age groups.

The findings indicated few differences between the level of medical x-ray usage for persons with low family incomes and those from more prosperous families. By contrast, the use of dental x-ray examinations showed a steady increase paralleling increases in annual family income.

For medical x-ray visits alone, there was sharp distinction between urban dwellers and farm people. Metropolitan residents averaged about 55 x-ray visits per year per 100 persons, small town residents showed approximately 43, and farm families about 32.

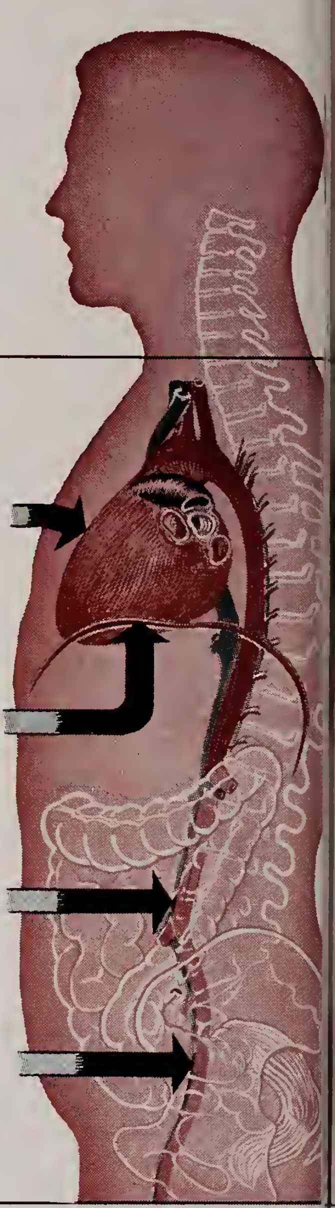
Data on the equipment factors used for medical x-ray procedures showed one particular area in which improvement can be obtained—limitation of the x-ray beam to the area of the films used.

A future phase of the study will translate information collected in the 1964 survey into estimates of dose to specific organs of the body. This will be accomplished by combining the study data with exposure data developed at several universities.

Dearth of New Drugs

". . . New drugs are now fewer in number, slower in coming, and more costly than ever to produce. It is no coincidence, in my opinion, that the number of new single chemical entities introduced in the U.S. prescription pharmaceutical market has fallen from a high of 63 in 1959 to 18 in 1963, and finally to 17 in 1964. This year, for the first time since 1959, it appears that there will be an increase in new products. The number of new drugs approved so far this year is 17. You will note that 1959 just happened to mark the beginning of the Kefauver investigation."—C. Joseph Stetler, to the Southern Medical Association, October 31, 1965.

In Cardiovascul



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SEARLE

Research in the Service of Medicine

The Status of Injection Therapy

A wide armamentarium of media exists to relieve the allergy patient, but the research field is wide open for discovery of a prime agent

PHILIP M. GOTTLIEB, M.D.

Philadelphia, Pennsylvania

Pollen hyposensitization for treating hay fever patients became firmly established in clinical practice as a result of Noon's systematic study in 1911,[1] and after his death, J. Freeman's investigations. Their work was greatly extended by Cooke, M. Walzer, Rackemann, and many others, so that preseasonal, perennial, and coseasonal injections of aqueous or glycerinated extracts of pollens—as well as of a variety of other allergens—became widely used. Acceptance of the technique is based on patient satisfaction and on physicians' clinical impressions that the severity and the course of disease are favorably influenced.

As dissatisfaction with this type of therapy stemmed largely from the need for numerous injections each year, several investigators attempted to prepare slowly-absorbed pollen extracts such as these types: glycerolated (Clock); alum-precipitated (Sledge, and Zoss, Koch, and Hirose); formalized (Cooke, Stull, Hebald, and Loveless); in lanolin and olive oil (Naterman); in almond oil (Feinberg and Bernstein); lyophilized pollen extract homogenized into sesame oil (Taub and Rubens); in gelatin (Spain, Fuchs, and Strauss); pollen tannate (Naterman); pollen antigen hydrochloride (Rockwell); and formalinized pollen protein precipitates with tannic acid or urea (Naterman). Claimed for each preparation were greater tissue tolerance, fewer annual injections, higher safe peak dosage, and fewer and milder constitutional reactions—as well as greater clinical relief. Although none has been accepted professionally, the number of them indicates the desirability of the goals.

■ *Dr. Gottlieb serves seven hospitals. Past president of the Philadelphia and American Allergy societies and of the Pennsylvania Allergy Association, he is active in many other medical organizations. Huntingdon Valley is his home.*

In more recent years, three new forms of injectable, slowly-absorbed allergen formulations have received widespread attention, occasioning claims and counterclaims similar to those formerly surrounding older, now discarded preparations. These have been variously referred to as "depot" or "repository" therapy materials, and —in the case of the emulsified preparation—as the "one-shot" method. The principle underlying all of them is the delayed absorption of the allergen from the tissues, at the injection site, which hypothetically permits larger doses, a reduced incidence of untoward reactions, and improved therapeutic results—with fewer injections—as compared with multidose, aqueous extracts in the conventional form of therapy.

Loveless [2] and Brown [3] investigated the use of emulsified material in which the pollen or other allergenic extract is emulsified in a highly refined mineral oil (usually Drakeol) and an emulsifying agent (often Arlacel A, isomannide-oleate), in varying proportions. According to Berlin,[4] the latter substance, although serving principally as an emulsifier, also contributes to the local cellular reaction in the tissues and may alone exert a slight adjuvant effect on antibody formation. Emulsification is accomplished by means of various techniques, and with various kinds of apparatus. Since the administering physician must do the emulsifying (the mixed preparation not being commercially available and the FDA still considering it investigational), this therapy can be given only by a physician registered for investigation. In various hands, one, two, or three injections are given well before the start of the season.

Fuchs and Strauss [5] elaborated a water-insoluble whole pollen complex by extraction with pyridine (a tertiary base) and sodium bicarbonate solution, followed by precipitation with potassium aluminum sulfate solution; after washing, the precipitate is resuspended in sterile saline solution. This preparation, known as alum-precipitated pyridine pollen extract in saline, is commercially available for many pollens and a number of other allergens. Six, eight, or more injections are given preseasonally, in ascending dosages.

A third recent modification of extracts uses calcium alginate,[6] prepared by mixing the sodium salt of alginic or d-mannuronic acid derived from the hydrolysis of seaweed in a 4 percent solution, with 0.67 percent of calcium gluconate.[7] When injected into the tissues, this forms a gel, providing a depot for sustained release of the allergen. This material is not commercially available. Reports in the literature are insufficient in number to indicate an optimal frequency of dosage, but apparently while the number of injections may not be greatly reduced, larger dosages are tolerated with this substance than with aqueous extracts.

Partly as a result of the introduction of these new modes of therapy, attention has centered on means of assessing benefits of therapy, and on a critical evaluation of the results of multidose aqueous therapy in use for decades, since only by a valid appraisal of the latter can the relative merits of newer preparations be judged. Mere acceptance by patients and physicians is an inadequate criterion: "Patient satisfaction is not a reliable measure of efficacy. Inert materials give good clinical results in a high proportion." [8] "Simple clinical impression is hardly a dependable source of information. . .; safeguards are essential when matters of judgment enter into decision." [9] "A doctor makes the same mistake a thousand times and calls it 'clinical experience'."[10]

Problem Factors

Many factors contribute to the difficulty of evaluating inhalant allergy therapy. The subjectivity of patients' descriptions of symptoms—influenced as it is by a host of environmental and psychological considerations—requires no extensive comment. Attempts to score these responses by stratification of specific symptoms and/or by ascribing arbitrary values to their severity and duration by using patient- or physician-recorded daily or hourly charts and assigning values for various oral and other medications, although achieving semiquantitation of individual answers, does not eliminate, nor compensate for, the data's subjectivity. Likewise, the physician's direct observation of the nasal mucosa leaves much to be desired as a quantitation of therapeutic response.

To these difficulties must be added such variables as (1) fluctuations in the pollen counts or other inhalant exposures from day to day, hour to hour, and place to place; (2) mobility of the individual patient; (3) performance of pollen counts at locations remote from the patient's habitat; (4) riding in vehicles; (5) use of air conditioners and air-cleansing apparatus; and (6) presence of concomitant sensitization to substances other than the one being used in treatment.

A conference [11] of a number of investigators, sponsored by the Allergy Foundation of America and supported by the United States Public Health Service, adduced no practical objective method for determining the nasal mucosa's response to treatment. Dr. Paul M. Seebohm's posterior rhinomanometry method, presented at the conference (and involving measurement of intranasal air pressures at fixed rates of air-flow with the glottis closed), requires elaborate instrumentation and—more importantly—very cooperative, highly trained subjects. Much the same commentary applies to the method of Solomon et al,[12] which measures nasal airway resistance by simultaneously relating transnasal pressure drop and the rate of nasal air-flow, and that of Connell,[13] which measures the smallest cross-sectional area of the nasal airway.

While conjunctival tests with pollens and pollen extracts have been advanced as a means of evaluating therapeutic responses, there has been little agreement on their merits as compared with skin test titrations by various methods, and to simple evaluation of clinical severity.[14] Likewise, immunologic methods—whether used in measuring reagins, hemagglutinating titer, or blocking antibodies—have often failed to correlate with clinical responses. Although Connell and Sherman [15] showed that the severity of hay fever varies according to the titer of skin-sensitizing antibody, this determination—for a number of reasons—could not be used to measure the effectiveness of treatment.

Objective Test Needed

In short, the nonavailability of a simple, direct, objective determinant of therapeutic response poses great difficulties in assessing the value of any therapeutic approach. The problem is further compounded by the lack of adequate knowledge of the mechanisms of hyposensitization. Raffel [16] summarizes four possible explanations for the relative refractoriness to the allergen, following repeated small injections. Perhaps the most widely cited is the saturation or binding of the existing antibody by the injected antigen; sensitivity subsequently returns, due to replenishment of the antibodies. The opposite theory has also been advanced: excess antibodies formed as a result of the stimulation of the injections, and circulating in the bloodstream or present in the body fluids, combine with and neutralize the antigen, thus giving protection.

Contrary to both these views, it has also been postulated that in hyposensitization, a temporary interference with the proteolytic enzymes occurs, possibly in relation to the liberation of histamine from the tissues. More recently, there has been some evidence that hyposensitization may be mediated by dissolution or disruption of mast-cell or basophile granules, resulting from repeated minor antigen-antibody reactions; sensitization is restored when the granules regenerate.

There are serious objections to each of these concepts, and "conclusive evidence for or against all of them is still lacking." Frankland [17] likewise points out that in the absence of knowledge regarding the sites of antibody formation, and of agreement regarding the nature of the skin-sensitizing antibody, "there are considerable difficulties in our understanding of the possible mechanism whereby a series of injections gives clinical benefit to a patient." There is apparently no correlation of serum antibody titers obtained by hemagglutination methods, or between the clinical effects or dosages of injection.

Results with Newer Methods

We have already discussed the problem of evaluating objectively the results with any one therapy in any one patient. The problem is greatly compounded when one attempts to compare the results of a given method in the hands of several different investigators, and further complicated in comparing the results of two or more methods. Among many variables contributing to these problems are differences in (1) severity of disease, and degrees of sensitivity, in different patients; (2) varying standards for the admission of subjects to the studies; (3) pollen counts and other inhalant exposures in various localities; (4) pollen levels in successive seasons; (5) dosages used, and methods of selecting them; (6) composition of the repository material (nature of emulsifier, ratio of oil to emulsifier, concentration of active extract, and simultaneous administration of more than one extract); (7) technique and type of apparatus used in emulsification; (8) number of injections per season; (9) timing of injections; (10) use of vitellinic membrane technique; and (11) use of preliminary "priming" injections of aqueous extract.

In addition, there are clinical problems such as: (1) the concomitant presence of sensitivities other than the one under treatment; (2) the investigator's attitude toward ancillary medication; and (3) lack of agreement regarding standards for classifying therapeutic response. There is also evidence that clinical benefit varies between "new" patients (never before treated), and "old" ones (previously treated). We must even consider whether or not prior therapy was by means of conventional multidose aqueous extracts ("transitional" patients), or of repository injections.

A number of reports indicate satisfactory to excellent results from any form of injection therapy in respiratory allergic disorders; a few disclose unsatisfactory responses. For reasons already outlined and also because such restricted reports fail to reflect the comparative benefits of the various methods, they need not concern us here.

Even comparative studies performed by a single team in a given area suffer from some of the deficiencies previously noted—especially from the inadequacy of available parameters for gauging the degree of clinical response to therapy. For these and other reasons, such reports yield contradictory conclusions regarding the relative merits of the three most widely used injectable preparations.

Examples

A brief sampling will illustrate this anomalous situation: Sherman et al [18] found, in a double-blind study, that fifty patients with ragweed hay fever, treated with a ragweed emulsion, had definitely better results than did fifty-one patients treated with a placebo emulsion. In a series of seventy-seven comparable cases (although not a double-blind comparison), the results with ragweed emulsion and aqueous extract were similar, both being superior to those of the placebo group. According to Arbesman and Reisman,[19] routine aqueous therapy was more beneficial than repository emulsion therapy in a small series of previously untreated ragweed-sensitive patients, while placebo therapy yielded results as satisfactory as those with repository. However, in patients who had previously received injection therapy, the results of repository treatment were about as good as those with aqueous therapy. No correlation was found between the clinical response and the change in hemagglutination titer.

In 1963, Norman and Winkenwerder [20] found disparate results in first-time patients treated with repository emulsion, as compared with similar patients treated in the three previous years; they attributed the differences to a patient-selection factor, since the "new" patients, having received placebo injections the prior year, presumably comprised the milder cases. In several hundred hay fever patients, Gaillard et al [21] compared alum-precipitated pyridine pollen extract—both in saline suspension and in water-in-oil emulsion—with water-in-oil repository emulsion of aqueous ragweed extract. Therapeutic benefit was approximately the same with all three preparations, but the much lower incidence of systemic and delayed local reactions with the pyridine-linked allergens, permitting larger dosages, was considered a decided advantage.

Reisman and Arbesman [22] obtained far poorer results with alum-precipitated pyridine-linked extracts than with a partially purified fraction of whole ragweed extract. Winkenwerder and Norman [23] found no statistical differences in results obtained from pyridine extracts, purified ragweed allergen, and conventional aqueous ragweed extract, although all three groups did better clinically than those given placebo injections.

Numerous other studies relating to ragweed hay fever might be cited, but obviously no broad agreement is as yet possible. (This probably accounts for the strongly contradictory opinions of various investigators.) Also, similarly modified allergens have been used in grass and tree hay fever, as well as in cases involving sensitivity to house dust, molds, insects, insect venom sacs, animal danders, and other allergens. The newer preparations have also been used in coseasonal therapy of pollinosis.

Injection Therapy Complications

If opinions vary as to the relative merits of different forms of hyposensitization therapy, they are equally at variance regarding the incidence, types, and causes of reactions and other complications. Obviously—other things being equal—the frequency and severity of complications of a particular therapy will influence its clinical acceptability and usefulness.

All forms of hyposensitization therapy can produce local reactions, either immediate or delayed (characterized by local pain and swelling), focal reactions (manifested in aggravation of the presenting disease), and/or systemic overdosage reactions (usually of asthmatic and/or urticarial nature, and occasionally of anaphylactoid character, with all its possible variations).

The water-in-oil emulsion preparation is further known to induce formation of fibrotic nodules, cysts, and sterile or infected abscesses which may require incision and drainage. The potential carcinogenicity of refined mineral oil incorporated in the emulsions has also been considered, but no definitive evidence has been advanced that it can induce sarcomatous and/or other malignant lesions in human beings.

Other Reactions

In 684 patients receiving 3,947 repository emulsion injections, Frankel et al [24] noted 49 constitutional reactions—chiefly urticaria and angioedema, but also including allergic rhinitis and bronchial asthma. No cysts were caused by ragweed- and grass-pollen emulsions in their hands, but mold antigens produced 42 cysts without a constitutional reaction. Twenty-four of the cysts were treated with aspiration, steroids, and pressure bandages; 18 resolved spontaneously. House dust emulsion gave rise to no systemic or cystic reactions.

In 140 patients receiving 560 emulsion injections—mostly of ragweed and grass pollens—Zolov [25] observed 12 (2 percent) local and 10 (1.8 percent) systemic reactions, including six abscesses. Five of these were infected with Staphylococci. In the formation of cysts, nodules, and abscesses, he implicated metal particles in the emulsion, delayed sensitivity, direct trauma, and bacterial contamination.

Many reports indicate a progressive reduction in reaction rates, as experience is gained and techniques are improved. McLean, Barlow, and Sheldon [26] noted, for example, that local reactions from emulsion therapy fell from 66 percent to 15 percent, and allergic reactions from 2.2 percent to 1.3 percent, in successive years. In their first year of such treatment, 4 of 64 patients had nodule formation, and 2 developed sterile abscesses. In subsequent years, no nodules, cysts, or abscesses occurred, although about 6 times as many patients were similarly treated. The clinicians attributed the late local reactions to a foreign-body irritative process.

Animal studies vary with regard to the tissue effects of injected mineral oil. Criep and Beam [27] found a high incidence, in rabbits, of vascular and other pathologic changes (particularly in the lungs), following injections of incomplete Freund's adjuvant, with or without pollens. These changes included mild interstitial granulomatous reactions, vasculitis and perivasculitis, and interstitial infiltration of oil into the kidneys. On the other hand, Brown and Browne [28] detected no deleterious effects in guinea pigs and dogs.

Summarizing the literature: reactions do not occur sufficiently often to be a serious drawback to any properly-administered treatment method, although it must be granted that an occasional persistent sterile abscess (particularly if it requires incision and drainage), is a troublesome complication.

Green[29] has shown that the prior administration of a sustained-action antihistamine capsule and a corticosteroid greatly reduces constitutional reactions to emulsion injections.

Caplin[30] has thoroughly reviewed the causes, and the means of prevention, of reactions in emulsion therapy. Constitutional reactions are due to improper or incomplete emulsification, overdosage, fever, overexertion or overheating of the body, internal or external use of alcohol as an antiseptic, and improper preparation of glassware and needles. All lead to a release of antigen at a rate or in an amount intolerable to the patient. Local swellings are attributed to overdosage, use of irritating extracts in emulsion preparation, vigorous host response, and trauma. Nodule and cyst formation seem to relate to four areas of causation: the adjuvant (toxic Arlacel, or reduction of the mannide mono-oleate to oleic acid), the extract (irritants in dust and mold extracts, high dosage, and the presence of irritants—possibly the protoplasmic toxicity of phenol), the host (marked host foreign-body reaction, local trauma, presence of systemic or dermal infections), and the technique (bacterial contamination, or contamination of the emulsion by cotton, metal, or rubber).

Current Status

The data cited indicate that there is now no method of choice in hyposensitization therapy. Only representative reports have been adduced, of course; many others could be cited at each point.

In my experience with emulsion therapy of pollen, dust, and mold sensitivity in a relatively small series of patients, results have been gratifying—probably slightly better than those of conventional multidose aqueous therapy. Systemic reactions have been no problem, having constituted less than 1 percent and having yielded readily to appropriate treatment. Persistent fibrotic nodules appeared in about 8 percent of injections, but they have not been troublesome to the patients, and no cysts or abscesses have developed. With alum-precipitated pyridine-extracted allergens, the overall benefits have probably been fewer than with conventional therapy. Admittedly, the comparisons of improvement with each of these modalities are based only on clinical impressions and patient acceptance. Patient preference for emulsion therapy has been high, largely because of the great reduction in the number of visits and injections required.

Discussion

As in all areas of science where contradictory data and results are manifest, the next step is to ask for the reasons. The variables in this field are manifold. To reiterate: attention should focus on the method of preparing emulsions, the degrees of their uniformity, their respective constituents, and the dosage, number, and timing of injections. These and other technologic problems could postulate enough questions for a generation of research. Even after many years of widespread use of multidose aqueous hyposensitization, very inadequate research data are available regarding its therapeutic benefits. Pertinent to this point are the inadequacies of clinical appraisal in helping determine how much is accomplished by therapy in any chronic or recurring illness.[31] Until a simple, reliable, and (preferably) totally objective means is devised for assessing variations in the severity of respiratory allergies and their response to treatment, we must continue to rely on clinical impressions and patient acceptance.

Faced with the needs of a patient suffering from respiratory allergy, what course should the physician choose? There is no simple answer. The conventional therapy has stood the test of time. Newer methods present the advantages of convenience and of economy of time. They are effective, according to some clinicians, inferior to the older methods, according to others. The FDA terms emulsion therapy still investigational. The clinician should familiarize himself with available methods, applying those he finds most helpful.

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Dr. Gottlieb presented this paper at a specialty session on allergy during the 1965 PMS Annual Session.

Pregnancy—Associated Cervical Carcinoma

There is no evidence that the physiologic changes of pregnancy accelerate the growth or dissemination of carcinoma of the cervix. As in the nonpregnant patient, a good prognosis depends largely on early diagnosis and treatment. Apparently, due to cervical effacement and trauma, a carcinoma first discovered in late pregnancy or in the postpartum period is associated with a poor prognosis. Stage for stage, the prognosis for the pregnant patient with carcinoma of the cervix is essentially the same as that for the nonpregnant patient.

The criteria used in the selection of treatment for cervical carcinoma in the pregnant patient are the same as in the nonpregnant patient. When the fetus is nonviable, treatment should be instituted immediately. A viable fetus should be delivered prior to any treatment. Late in the second or early in the third trimester of pregnancy, a few weeks' delay of treatment of the carcinoma will provide a better fetal prognosis. Unfortunately, statistical data at present are inadequate to determine how great an additional risk the mother must assume when therapy is delayed.

As in the nonpregnant patient, properly selected and executed primary surgical treatment and properly administered radiation therapy will provide good results. The method of treatment selected should depend somewhat on the radiologic and surgical facilities, experience, and skills available. With suitable lesions (stage I or stage II-a), primary surgical treatment provides the young patient with many advantages, and the morbidity, mortality, and survival rates are comparable to those achieved with radiation therapy. Richard E. Symmonds, M.D., Hahnemann Symposium on New Concepts in Gynecological Oncology.

SPECIAL ANNOUNCEMENT

The entire concept of the PMS convention program has been radically changed this year, with a unique approach planned for the Annual Session in Pittsburgh, October 10-12: a three-day teaching institute involving workshops, clinical rounds, and programmed review courses, all built around the theme "Controversy in the Practice of Medicine." The emphasis will be on personal instruction, using many of the innovations so successfully inaugurated in the Atlantic City convention last year.

Watch future issues of Pennsylvania Medicine and the PMS *Newsletter* for more information regarding program details and preregistration.

Pending Animal-Use Bills Threaten Medical Studies

Proposed items of federal legislation which if passed would affect the future supply of research animals, are summarized in a release from the American Medical Association:

- **H.R. 3036** (Pepper, Florida): Would create a laboratory animal control agency within the Department of Justice, and would prohibit federal agencies from using animals in research unless the agencies have "certificates of compliance." Bill would set tight restrictions on how and by whom animals could be used.

- **H.R. 5647** (Cleveland, New Hampshire): Individuals seeking grants for research would have to meet many strict requirements. Use of living vertebrate animals would be permitted only when no other method is feasible.

- **H.R. 7312** (Tupper, Maine): A coordinator of laboratory animal welfare would authorize minimum standards for laboratories and animal dealers.

- **H.R. 10049** (Rogers, Florida): Would create an all-encompassing independent research office of laboratory animal welfare headed by a coordinator appointed by the President.

- **H.R. 5191** (Roybal, California): Would authorize the Surgeon General to oversee and implement various aspects of animal supply, care, and use.

- **H.R. 9743** (Resnick, New York): Would regulate buying, selling, and transporting of cats and dogs by research organizations. Dealers and laboratories would need licenses obtained from the Secretary of Agriculture. Dealer or research facility would be culpable for acts of their employees in handling of animals.

- **H.R. 1087** (Neuberger, Oregon): Surgeon General would be required to establish minimum standards for care, housing, and use of animals. Secretary of HEW would be required to set up reference library on research involving use of animals.

- Physicians have been advised to consider prescribing short-acting sulfonamides because of cases of Stevens-Johnson syndrome which developed with use of the long-acting sulfonamide drugs. The Food and Drug Administration ordered revised labeling on the long-acting type.

Isopropyl Alcohol and Diabetes

Well-controlled diabetics with unexplained ketosis and coma may be ingesting $(CH_3)_2CHOH$. The literature and a case are reviewed

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In the past twenty years isopropyl alcohol has been substituted for ethyl alcohol as a disinfectant, and as a solvent in many household products. Since it has become easily available at low cost to the public, isopropyl alcohol intoxication is probably not rare. We recently observed a patient who was admitted to the hospital several times for symptoms which, in retrospect, were mainly due to isopropyl alcohol ingestion.

Case Report

Mrs. L. H., a thirty-two-year-old diabetic known to have been an alcoholic for many years, was in 1963 admitted to another hospital, with blurred vision and abdominal pains. She had bilateral optic atrophy, the cause of which could not be established. She had no diabetic retinopathy. Since then she has been admitted twice to the Graduate Hospital for the same symptoms. Extensive gastrointestinal and neurologic studies have not revealed causes for the abdominal pains or for the optic atrophy.

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She was also admitted twice for uncontrolled diabetes. She presented both times with an identical clinical picture, characterized by stupor, vomiting, and large amounts of acetone in her serum and urine. Unexpectedly, her CO_2-combining power was always normal and her blood sugar was never above 300 mg. per 100 ml. Her blood pH was 7.46 at a time when her serum was strongly positive for acetone. Although her blood sugar rapidly returned to normal with rather small doses of insulin, the acetone in the urine persisted for 48 hours. While she was hospitalized, her blood sugar was fairly well controlled with insulin, but she would often have 3+ acetone in the urine and her serum would be positive for acetone in a 1:4 dilution.

She often asked for a bottle of rubbing alcohol in the evening, and by the next morning this bottle, containing 100-150 ml. of 70 percent isopropyl alcohol, would be empty. A blood sample was examined for isopropyl alcohol content by gas chromatography.[1] This blood sample contained 10 mg. of isopropyl alcohol and 160 mg. of acetone per 100 ml. Because this acetone is derived from the oxidation of an equal amount of isopropyl alcohol, these figures indicate a moderately severe intoxication.

Discussion

Isopropyl alcohol is a colorless fluid with a characteristic odor and taste. It has been used for many decades as a solvent in the manufacture of perfumes, cosmetics, lacquer, and varnish.[2] More recently it has replaced ethyl alcohol in common household products such as rubbing alcohol, hair lotions, and paint thinner. Rubbing alcohol consists of 70 percent isopropyl alcohol in water, plus green dye. These products, readily available, are consumed by some alcoholics for their intoxicating properties.

Isopropyl alcohol is rapidly absorbed from all portions of the gastrointestinal tract and distributed to all tissues. In laboratory animals, absorption is almost complete within thirty minutes after ingestion.[3] With no appreciable absorption through the skin, daily dermal application causes no toxic effects in man [4] or in animals.[5, 6] The substance can be absorbed through the lungs, and severe intoxication may result from inhaling its vapors. Two cases have been reported of coma in children, due to sponging with isopropyl alcohol for fever.[7, 8]

Isopropyl alcohol is for the most part oxidized, ultimately to water and carbon dioxide. Between 10 and 20 percent is excreted through the kidneys and lungs, partly unchanged and partly as acetone.[9, 10, 11] Isopropyl alcohol is also found in saliva and in gastric juice, reabsorption from which may prolong the duration of intoxication.[12] In vitro, isopropyl alcohol is readily oxidized to acetone. Further oxidation to a mixture of formic acid and acetic acid is more difficult. In vivo, there also is oxidation to acetone, but there is no evidence that formic acid is formed.[13]

When isopropyl alcohol is given by mouth to normal persons, acetone appears in the exhaled air after fifteen minutes, and in the urine after one hour. Acetone has been found in the urine after ingestion of as little as 0.25 gm. of isopropyl alcohol. Following the ingestion of 20 gm. of isopropyl alcohol, the acetonuria may persist for 48 hours.[10] Usually there is no acidosis, and the CO_2-combining power remains normal. No acetoacetic acid is found in the urine.[10] Acetone infusions in normal subjects have shown that this compound can be transformed into other ketone bodies, especially beta-hydroxybutyric acid, but such transformation does not occur consistently.[14, 15] We must therefore consider the possibility that isopropyl alcohol could cause a rise of the other ketone bodies as well, thus producing all the biochemical changes of ketoacidosis; this has not been described, however, and it did not occur in our patient.

The catabolism of isopropyl alcohol is not accelerated by the administration of insulin or of insulin and dextrose.[16] The renal excretion of isopropyl alcohol and acetone is increased by forced water diuresis.[10, 16] Even under these circumstances the amount that is excreted is relatively small and has little influence on the blood level of isopropyl alcohol.

The narcotic effect and the acute and chronic toxicity of isopropyl alcohol is between 1½ and 2 times that of ethyl alcohol.[2, 4, 13, 17] In laboratory animals it causes a depression of the central nervous system similar to that caused by ethyl alcohol, but there is no period of excitation.[5] Ataxia and narcosis occur, and with larger doses there may be respiratory paralysis. When a large dose is given by mouth the animals have severe retching and vomiting.[17] In fatal intoxications, death occurs within twenty-four to thirty-six hours. If consciousness returns, there is always complete recovery within twenty-four hours, and no late effects are seen. In rats, the daily administration of isopropyl alcohol with the drinking water for several months caused no lasting damage and no increased mortality.[17, 18]

Experimental studies in human volunteers have given similar results. After the ingestion of 23 ml. of isopropyl alcohol, normal subjects experience immediately a sense of warmth, dizziness, and flushing of the face. These symptoms subside rapidly and are followed after two or three hours by headache, general body aches, mental depression, nausea, and vomiting. These secondary symptoms sometimes persist for more than twenty-four hours.[4, 13, 19] No visual disturbances have been reported. With larger doses, abdominal pain, nausea, and vomiting may be prominent symptoms. If animal data can be applied, the fatal dose for man would be about 160 gm.[17]

Twelve cases of severe intoxication with complete recovery,[20, 21, 22] and five fatal cases,[23] have been reported in the literature. Four of the five patients died within a few hours after ingestion, as a result of central nervous system depression and respiratory paralysis.

Most patients with severe intoxication recover uneventfully. Vomiting frequently is present and may be the cause of pulmonary complications. In some patients, gastric hemorrhage has occurred. The management of these patients should include supportive therapy and gastric lavage. Because isopropyl alcohol is secreted with saliva and gastric juice, the stomach contents should be aspirated continuously.

Our patient presented several times with symptoms suggestive of impending diabetic coma. It is now apparent that her stupor and ketosis were due to isopropyl alcohol intoxication. It is also most likely that her bouts of vomiting and abdominal pain were due to the irritative effect of alcohol. The cause of her optic atrophy is still obscure; eye damage due to isopropyl alcohol has never been reported. It is quite possible that her optic atrophy is the result of previous methyl alcohol ingestion.

The presence of acetone in the serum or urine of a normoglycemic diabetic may be encountered in several specific situations. During recovery from diabetic ketoacidosis, the hyperglycemia may be corrected first, before all the acetone has been metabolized. Starvation ketosis could occur in a diabetic and would not necessarily be accompanied by an elevated blood sugar. In the presence of unexplained ketosis we should also suspect isopropyl alcohol intoxication, which is probably not rare in certain sections of the population.

* * *

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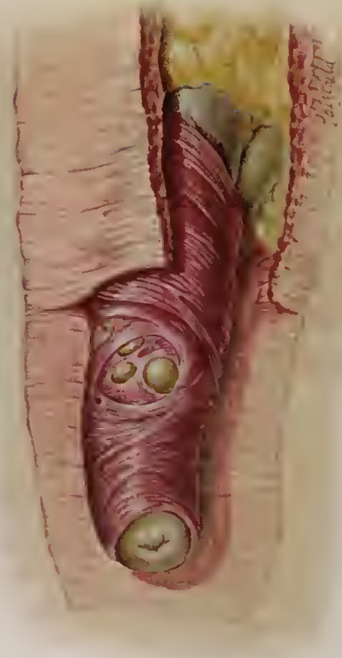
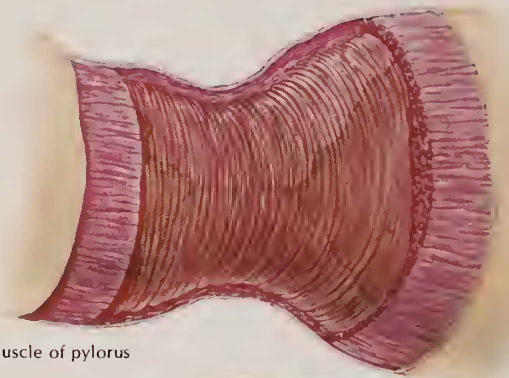
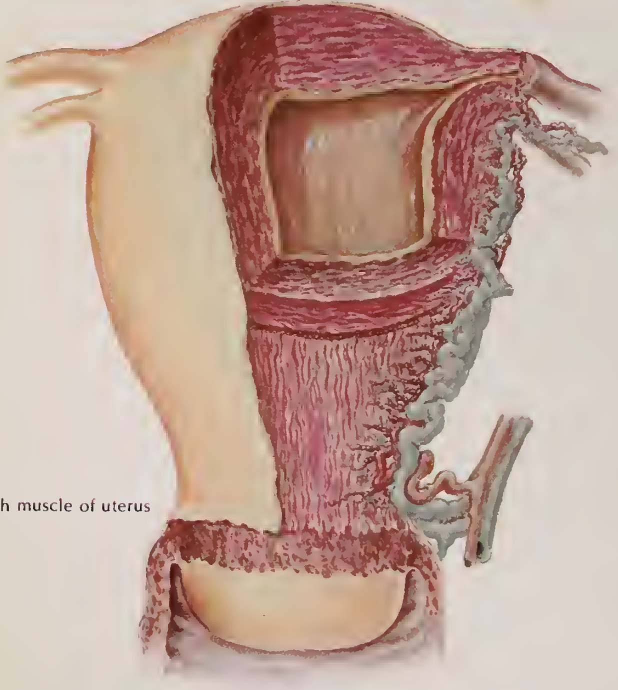


smooth muscle sphincter of Oddi

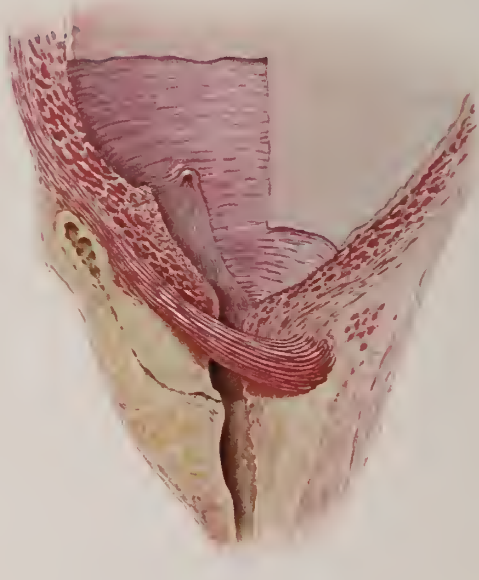


smooth muscle of pylorus

smooth muscle of colon



smooth muscle of uterus



smooth muscle of urinary bladder

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Polonium^{210} in Smokers' Lung Tissues

Cigarette smoke contains trace amounts of an alpha-particle-emitting radioactive element, polonium^{210} (Po^{210}), a naturally occurring daughter isotope of radium^{226}. In establishing whether this source of radiation exposure may be involved in the initiation of bronchial cancer in smokers, an important step is to show that pulmonary tissues of smokers, particularly certain regions of the bronchial epithelium, contain more of this element than do those of nonsmokers.

The present investigation was undertaken to measure Po^{210} concentrations in various pulmonary tissues of smokers and nonsmokers.

Procedure

Lung specimens from 36 patients were studied. The specimens were either whole lungs obtained at autopsy or whole lungs or lobes surgically removed. Twenty-five of the patients were cigarette smokers, two were pipe smokers, one was a former cigarette smoker, and eight had never smoked.

Radioactivity was measured in gas-flow proportional counters, with background rates of 0.2 to 0.6 counts per hour, and efficiencies of 51 percent for polonium alpha particles.

The Po^{210} concentrations found in lung parenchyma, peribronchial lymph nodes, and bronchial epithelium are expressed as picocuries (10^{-12} curies, or 2.2 disintegrations per minute) of Po^{210} per gram of wet tissue. The average concentration in peripheral parenchyma of current cigarette smokers was 0.0074 picocurie per gram as compared with 0.0016 for nonsmokers. Parenchymal concentrations in the two pipe smokers were similar to those of nonsmokers.

No correlation was found between concentrations in the lung parenchyma with total cigarettes smoked expressed as pack years (packages per day times number of years smoked), or with the age of the individual at death. However, there was a trend toward higher Po^{210} levels in persons whose daily cigarette consumption was high.

Correlation with daily cigarette consumption, but not with total cigarettes smoked, is not unexpected because of the rapid clearance time for particulates by the lung and the relatively short half-life of the polonium isotope. When parenchymal Po^{210} was studied as a function of time since cessation of smoking, a significant trend toward higher levels was evident only in those who had smoked up to 24 hours or less before death or surgery, but the scatter was great. The parenchymal Po^{210} concentration in the one former cigarette smoker was very low (0.0015 picocurie per gram).

Though the Po^{210} concentration in bronchial wall was similar to that present in lung parenchyma, it was about two orders of magnitude greater in bronchial epithelium than in parenchyma or lymph nodes. By far the highest concentrations were found in epithelium from segmental bifurcations where levels as high as 13.9 picocurie per gram were measured.

Measurable Po^{210} was also present in superficial mucus from all smokers. The concentrations ranged from 0.002 to 0.044 picocurie per gram of mucus, except in one case in which the concentration was much higher.

No correlation existed between number of cigarettes smoked, or time since the last cigarette, and the Po^{210} levels in bronchial epithelium. Similarly, there was no correlation between parenchymal and epithelial concentrations. In the two pipe smokers epithelial Po^{210} content was similar to that of cigarette smokers though the parenchymal concentrations were very low. Significant, though low, levels of activity were found in the lobar bronchus and one bifurcation of the single past smoker.

Mode of Entry

"Unsupported" Po^{210}, or polonium not present with its long-lived parent, lead^{210}, may be taken into the body directly. Because its half-life is only 138 days, exposure to the isotope would have to be fairly continuous for a steady-state concentration to be reached in tissues. On the basis of preliminary measurements of lead, we believe that most of the Po^{210} in smokers' lungs comes from such unsupported Po^{210} present in cigarette smoke.

The relatively low Po^{210} concentration in lung parenchyma of cigarette smokers as compared to nonsmokers suggests that the majority of inhaled smoke particles are rapidly cleared from the lung. The distribution of polonium activity in the lung parenchyma of cigarette smokers suggests that either deposition or clearance of smoke is not uniform. Because deposition of cigarette smoke depends on diffusion, it should be relatively uniform within the lung. The lower polonium content in peripheral parenchyma probably reflects a more rapid clearance of smoke from peripheral lung tissue into the bronchial tree than from more central regions. Clearance of the majority of inhaled cigarette-smoke particles appears to be rapid and to occur primarily by way of the bronchi.

Not the Only Factor

It is unlikely that alpha radiation is the sole factor responsible for bronchial tumors in smokers. Other agents in cigarette smoke may well contribute significantly as cocarcinogens, and the effect of a small radiation dose may be considerably magnified by their action.

Because of the uncertainty associated with dose estimates to bronchial stem cells in cigarette smokers, it is premature to assert that Po^{210} is or is not likely to be the major factor in induction of bronchial cancer in smokers. It is unlikely that there is a threshold dose below which no effect would be produced by alpha radiation; on this basis any dose, no matter how small, would have a certain probability for tumor induction. Finally, recent preliminary studies in animals indicate that alpha radiation may be a much more potent carcinogen in the production of certain skin cancers than is more sparsely ionizing radiation.

As for the distribution of Po^{210} within the lung, the high levels found in segmental bifurcations are in regions where bronchial carcinomas frequently arise. The relatively low concentrations in lung parenchyma indicate that significant localization does not occur in the alveoli and, indeed, parenchymal tumors are relatively uncommon in cigarette smokers.

On the basis of the available evidence, it may be concluded that radiation from Po^{210} may be an important factor in the initiation of bronchial cancer in cigarette smokers.

• John B. Little, M.D.; Edward P. Radford, Jr., M.D.; H. Louis McCombs, M.D.; and Vilma R. Hunt, B.D.S., *The New England Journal of Medicine,* December 16, 1965.

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Precautions: Careful supervision of dose and amounts prescribed is advised. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction; withdraw gradually after use for weeks or months at excessive dosage. Abrupt withdrawal may precipitate recurrence of preexisting symptoms, or withdrawal reactions including, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, the dose should be reduced and operation of motor vehicles or machinery or other activity requiring alertness should be avoided if these symptoms are present. Effects of excessive alcohol may possibly be increased by meprobamate. Grand mal seizures may be precipitated in persons suffering from both grand and petit mal. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side effects: Drowsiness may occur and, rarely, ataxia, usually controlled by decreasing the dose. Allergic or idiosyncratic reactions are rare, generally developing after one to four doses. Mild reactions are characterized by an urticarial or erythematous, maculopapular rash. Acute nonthrombocytopenic purpura with peripheral edema and fever, transient leukopenia, and a single case of fatal bullous dermatitis after administration of meprobamate and prednisolone have been reported. More severe and very rare cases of hypersensitivity may produce fever, chills, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, anaphylaxis, stomatitis and proctitis. Treatment should be symptomatic in such cases, and the drug should not be reinstituted. Isolated cases of agranulocytosis, thrombocytopenic purpura, and a single fatal instance of aplastic anemia have been reported, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity has been reported, usually after excessive meprobamate dosage. Suicidal attempts may produce lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

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Speech Therapist to Medical Inventor

Noted for research related to the voice, Alexander Graham Bell, M.D., also pioneered other medical ideas that were far ahead of his time

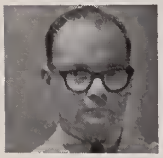
WILLIAM F. DONOHUE, A.R.I.T.
Pittsburgh, Pennsylvania

Preparing to leave Washington, D.C., on July 2, 1881, to attend commencement exercises at Williams College, Williamstown, Massachusetts, President Garfield was driven to the Baltimore and Ohio Railroad station by Secretary of State Blaine. The waiting room was practically deserted as the President checked his train's departure time with a policeman.

Just as the President and Secretary Blaine turned to walk away, the silence was shattered by gunfire. Mr. Garfield fell, struck by two bullets—one of which had penetrated his torso. He was taken back to the White House in grave condition.

News of the attempted assassination caused an uproar in the capital, and physicians from throughout the city were summoned to the White House. The President's rugged constitution helped carry him through the first few days, but as time passed, it became apparent that unless the bullet had lodged in such a way that it would become safely encysted, the President's survival would depend on its removal.

In Boston, Alexander Graham Bell, recalling his previous experiments with the induction balance, wondered what this technique could do to help locate the bullet. Thus began the famous inventor's most highly publicized medical experiment.



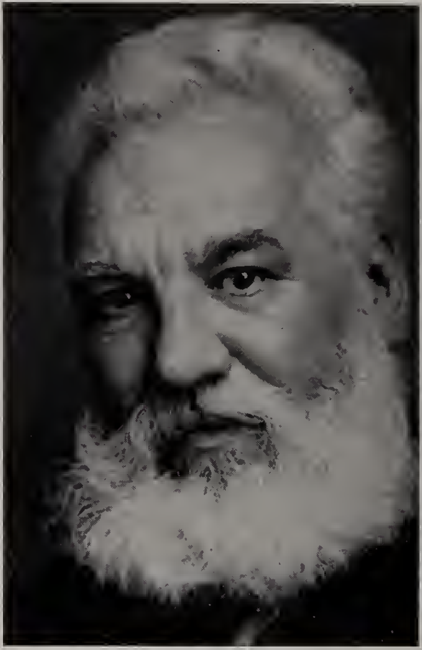
■ *Mr. Donohue, a resident of Pittsburgh, is supervisor of the Western Pennsylvania Hospital Department and School of Inhalation Therapy. Active in organizations related to his specialty, he is a contributing editor of* Inhalation Therapy.

With Sumner Tainer, his co-worker from the Volta Laboratory, Bell went to the White House to offer his services. The President's physicians sanctioned his suggestion, and for the next several days, using widely assorted equipment, Bell worked feverishly to perfect an apparatus adapted to carrying out the probe. He devised an induction balance wired to a telephone and an alarm clock. With the system in balance, the clock was inaudible but the presence of a metallic object nearby would throw the system out of balance, whereupon the clock's ticking could be heard on the 'phone.

The first test on the President proved inconclusive, and Bell redoubled his efforts. Toward the end of July, he wrote to inform one of the White House physicians that if it became necessary to experiment on Mr. Garfield's problem again, the chances of success would be much greater.

Bell was asked to make another test almost immediately, but this one, too, was ineffective. The fact that a faint buzzing was heard over a wide area during the experiment puzzled Bell. On checking with White House officials, he learned that despite his request that all metal objects be removed from the immediate area of the stricken President, attendants had failed to remove a spring from the bed on which he lay.

This second unsuccessful attempt gave rise to charges that Bell was merely seeking publicity for himself. Characteristically, he ignored these accusations and continued the work on his apparatus, effecting several improvements. But by then, Mr. Garfield's condition was worse, and further tests could not be carried out. Ironically, about a month after the President's death on September 19, Bell's induction method was successfully applied to veterans still carrying Civil War bullets in their bodies.



DR. BELL

An outgrowth of Bell's induction balance test was his development of the famous telephone probe: a fine needle was attached by wire to one terminal of a telephone, and a metal plate connected with another. Contact of the needle and an embedded bullet produced an audible "click" in the telephone. This device was widely used until it was supplanted by x-ray equipment.

In recognition of his contribution to surgical methodology, Bell received a rare "Honorary M.D." degree from the University of Heidelberg.

Bell's direct interest in medical matters, however, was not confined to the surgical probe, but dated back to his youth. From close association with the work of his father and grandfather, he developed a lifelong interest in speech therapy for the deaf.

In 1872 in Boston, he opened a School of Vocal Physiology and Mechanics of Speech. A year later, having been appointed professor of vocal physiology at Boston University, he transferred his classes there. It was his experiments with the harmonic telegraph and his knowledge of human speech that eventually led to his invention of the telephone.

Wide Interests

The inventor's agile mind ranged over many medical problems. At the turn of the century, radium was being used to treat superficial cancers, although it had proved ineffective in the treatment of deep-seated ones. This latter point vitally interested Bell—as evidenced in a letter he wrote to a doctor friend. Subsequently published in a medical journal, the letter suggested that the use of radium was not successful in treating deep-seated cancers because of the amount of healthy tissue between the radium and the cancer. He went on to say, "There is no reason why a tiny fragment of radium sealed up in a glass tube should not be inserted in the very heart of the cancer." There is no evidence that Bell claimed priority for having originated this idea, although it was successfully developed and applied during his time.

In another medical area, ideas outlined in his article, *A Proposed Method of Producing Artificial Respiration by Means of a Vacuum Jacket,* anticipated by many years the development of the modern "iron lung."

Present-Day Advances

Today, as companies bearing his name develop communications systems more complex than even his fertile mind could foresee, one is aware of a link with Bell's interest in medicine. In 1960, as a result of Bell Telephone Laboratories experiments, an electronic larynx, compact and light in design, was introduced. Although esophageal speech remains the preferred means of communication for laryngectomees, the new device has been widely accepted as a supplementary aid.

One direct outgrowth of Bell's most universally-known invention has proved a boon to the school child confined to home or hospital by physical disability or prolonged illness: an intercommunication unit engineered for use with telephone lines, and designed to enable the child to keep up in his studies. When he presses a "talk" switch, his voice—carried over private telephone lines linked to an amplifier —reaches a unit in the school classroom. A similar sending unit in the school enables the confined youngster to hear his teacher's questions and comments and his classmates' discussions.

Surely new devices such as these would be wonderfully gratifying to a man who so often worked with children—Alexander Graham Bell, M.D., a speech therapist turned inventor, an inquirer into aerodynamics and genetics, and above all, an earnest, concerned humanitarian.

• At the request of Pennsylvania Medicine, the portrait of Dr. Bell, and the photograph of school children and faculty, were provided by the American Telephone and Telegraph Company.

SOUND IDEAS—Best known for scientific contributions related to speech and hearing, A. G. Bell was throughout his life concerned with the problems of the deaf. This 1871 photograph of pupils and teachers at the Boston School for the Deaf shows Bell at upper right.

One of the greatest achievements in the world is that of the child born deaf who learns to talk.

Alexander Graham Bell

Hospitals' Loss of 'Charitable Immunity' Protection May Mean Fewer Malpractice Suits Against Physicians

Patients more likely to aim legal action at 'faceless institution' than at M.D.

FRANCIS E. SHIELDS, ESQ., AND WILLIAM J. O'BRIEN, ESQ.
FOR PEPPER, HAMILTON AND SCHEETZ, PMS LEGAL COUNSEL
Philadelphia, Pennsylvania

In *Flagiello v. Pennsylvania Hospital,* 417 Pa. 486 (1965), the Supreme Court of Pennsylvania held that the doctrine of charitable immunity was no longer a defense to a negligence action against a hospital, brought by a paying patient. Prior to the decision, Pennsylvania law held that a hospital, properly qualifying, could raise the eleemosynary defense, and as a result would not be subject to liability for torts [*Michael v. Hahnemann Medical College,* 404 Pa. 424 (1961); *Bond v. Pittsburgh,* 368 Pa. 404 (1952)].

Pennsylvania has now joined the growing group of states which have abandoned the doctrine of charitable immunity. A view of the current law in the United States shows that there are five states which still retain the eleemosynary defense.[1]

In recent years twenty-three states have abandoned the doctrine of charitable tort immunity.[2] There are nineteen (19) states which have the eleemosynary defense in a limited or qualified status. In some jurisdictions, immunity depends upon the type of negligence involved, i.e., a distinction has been made between so-called "corporate negligence" and negligence of subordinates. According to the decisions in those jurisdictions, a charity will not be permitted to assert immunity from tort liability as against damage or injury claims attributable to corporate or administrative negligence.

Corporate negligence includes lack of due care on the part of managing officers or directors such as a hospital superintendent, supervisor, physician, or nurse; negligence in the selection and retention of incompetent employees; or the negligent exercise of nondelegable duty such as the selection or supplying of proper equipment or facilities for the carrying out of the charitable purpose.[3]

In a few jurisdictions, the immunity or lack of immunity of a charity, from tort liability, depends upon the *status* of the *person injured* or sustaining the damage. A charity may be liable in tort to its servants or to strangers, and yet immune from liability to persons injured or damaged while inmates, patients, or otherwise benefiting or seeking to benefit from its charitable activities. Where either the complete immunity from tort liability doctrine or the no immunity doctrine is recognized and adhered to, status of the person injured with respect to the charity is obviously of no moment. Under partial immunity doctrines recognized in several states, the relationship between the person damaged and the charitable institution is a major factor. Seven states follow the so-called "beneficiary rule," only maintaining immunity against a participant, recipient, or beneficiary of the charity if the injury or damage does not result from failure of the charity to exercise due care in the selection or retention of an employee. The charity is subject to liability to all other claimants including employees, invitees, and strangers.[4]

A further distinction has been drawn in certain jurisdictions between paying and nonpaying patients. Six states make this distinction.[5]

On this point it is not at all settled as to what Pennsylvania will do when the nonpaying patient case is before it. Significantly, Mr. Justice Musmanno, writing the majority opinion in the *Flagiello* case, bolsters the holding by stressing the fact that Mrs. Flagiello was a paying patient (see 417 Pa. at pps. 488, 489, 490, 491, 492, 497, 499).[6]

One lower Court in Pennsylvania has already interpreted *Flagiello* as making a distinction between a paying and a nonpaying patient, holding that *Flagiello* did not apply to a nonpaying charity case, *Nolan v. Tifereth Israel Synagogue of Mount Carmel, Pa., Inc.,* (Court of Common Pleas of Northumberland County, reported in *The Legal Intelligencer,* September 17, 1965).

In the *Nolan* case, a suit was brought against the synagogue, which in turn raised the defense of charitable immunity. Plaintiff sought to avoid the defense, citing the *Flagiello* opinion. The Court refused to extend *Flagiello,* stating:

> "We interpret the rule of the *Flagiello* case to be that the doctrine of immunity from liability of a charitable organization does not apply to a hospital which charges the patient for services rendered."

To summarize, five (5) states have retained the eleemosynary defense, twenty-three (23) states have abandoned the defense—seven (7) doing so in the last five years. Nevertheless, nineteen (19) states have a qualified immunity and six (6) states distinguish between paying and nonpaying patients.

Vicarious Liability

The effect of the *Flagiello* opinion on the law of charitable institutions is still open to question. Similarly, the effect of the opinion on the law of malpractice is still open to question; however, there is one area of physician's liability which will surely be affected, that is the law of vicarious liability.

In Pennsylvania, the courts have gone a long way in imposing liability on a physician or surgeon for the negligence of a third party. In such cases, the physician was held to be vicariously liable for acts of another. The courts have used the "captain of the ship" doctrine; they have extended the meaning of medical acts to include palpably ministerial duties, and

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they have found ways of making an intern, resident, or nurse a "borrowed servant" of the physician so as to insure that the injured plaintiff is not barred by the defense of charitable immunity which the hospital as employer of the nurse, resident, or intern could invoke. It is submitted that some of the results were logically indefensible and were brought about by the existence of the charitable immunity defense which shielded the hospital from liability.

Law of Agency

A review of existing law makes it clear that physicians and surgeons, like other persons, are subject to the law of agency and a person employed by a hospital may be at the same time the agent of both a physician and of the hospital even though the employment is not joint [*McConnell v. Williams,* 361 Pa. 355, 65 A.2d 243]. In determining whether a person is the servant of another, it is necessary that he not only be subject to the latter's control or right of control with regard to the work to be done and the manner of performing it, but that this work is to be performed on the business of the master or for his benefit [*McGrath v. Edward G. Budd Manufacturing Co.,* 348 Pa. 619, 623, 36 A.2d 303, 305]. Actual control, of course, is not essential. It is the right of control which is determinative. On the other hand, the right to supervise, even as to the work and the manner of performance, is not of itself sufficient; otherwise a supervisory employer would be liable for the negligent act of another employee, though he would not be the superior or master of that employee in the sense that the law means it, Restatement (Second) Agency, § 220 (1) (1958) [*Commonwealth to the Use of Orris v. Roberts,* 392 Pa. 572, 141 A.2d 393].

There are approximately eight cases dealing with this problem in Pennsylvania. They can be placed in five categories, including conduct which took place: (1) before the operation [*Yorston v. Pennell,* 397 Pa. 28, 153 A.2d 255 (1959), *Rockwell v. Stone,* 404 Pa. 474, 173 A.2d 54 (1961)]; (2) during the operation [*Benedict v. Bondi,* 384 Pa. 574, 122 A.2d 209 (1956), *McConnell v. Williams,* 361 Pa. 355, 65 A.2d 243 (1949)]; (3) after the operation [*Sacchi v. Montgomery,* 365 Pa. 377, 75 A.2d 535 (1950), *Shull v. Schwartz,* 364 Pa. 554, 73 A.2d 402 (1950), *Stewart v. Manasses,* 244 Pa. 221, 90 Atl. 574 (1914)]; (4) during certain therapy treatments [*Powell v. Risser,* 375 Pa. 60, 99 A.2d 454 (1953)]; and (5) in the exercise of purely ministerial functions [See *Benedict v. Bondi, supra,* note 2; *Stewart v. Manasses, supra,* note 3].

An examination of the cases in this area makes it apparent that Pennsylvania with *Yorston* and *Rockwell* has been among the most liberal jurisdictions in allowing recovery against the surgeon or physician for wrongs of hospital employees working under or in conjunction with him.

In *McConnell* and *Benedict,* for example, the chief surgeon was in the operating room even though he did not do the acts complained of. In *Yorston,* the chief was nowhere near the scene of the operation, but prior to the operation the surgeon had directed an intern to perform an act, and this was held to be a sufficient connection with the operation to impose liability.

In *Rockwell,* the chief-of-staff surgeon was held liable not only because he was the chief, but also as stated by the court on grounds of negligence in that he had elected the treatment, had selected the anesthesia, had seen the patient, had made no inquiries, had observed deterioration during surgery, and had not followed up on the patient.

Ancillary Error

Shull v. Schwartz, 364 Pa. 554, 73 A.2d 402 (1950), was a suit against a surgeon. The operation was successful. Subsequent to the operation, a hospital intern was directed to remove stitches as part of the postoperative treatment. The stitches were not removed by the intern, and as a result, the plaintiff suffered an injury. The Supreme Court sustained the judgment entered in favor of the defendant. In the course of the opinion, the Court quoted from *McConnell v. Williams, (supra)* as follows:

> ". . . a surgeon's liability [does not] apply, after the operation is concluded, to treatment administered by floor nurses and internes in the regular course of the services ordinarily furnished by a hospital; as to all such care and attention they would clearly be acting exclusively on behalf of the hospital and not as assistants to the surgeon."

The Court then stated that even though the intern was negligent in the postoperative treatment, the surgeon who did not personally participate in that treatment could not be held liable.

Sacchi v. Montgomery, 365 Pa. 377 (1950), involved an appeal from the grant of a nonsuit. This case involved a claim that an intern and a nurse at a hospital ignored bleeding in the plaintiff after she was returned from the operating room to her bed. In sustaining the nonsuit, the opinion states at page 380:

> "There was no evidence that the hospital intern or nurse were negligent in their postoperative care of the patient, but even if they had been, the defendant, under the facts in this case would not have been liable; *Stewart v. Manasses,* 244 Pa. 221, 90 A. 574; *McConnell v. Williams,* 361 Pa. 355, 65 A.2d 243.

Benedict v. Bondi, 384 Pa. 574, 122 A.2d 209 (1956), involved a claim for injury caused by hot water bottle burns which the minor plaintiff received in the operating room. The evidence of this case showed that the defendant surgeon specifically directed the graduate nurse rather than a student nurse to apply hot water bottles to the child's feet. The hot water bottles remained in place during the course of the operation and, as a result, the feet were badly burned. The Supreme Court held that, in the circumstances of this case, the jury issue was presented as to Dr. Bondi's liability. However, during the course of the opinion, Former Chief Justice Horace Stern stated as follows:

> "Dr. Bondi contends that such control does not exist in regard to either preoperative preparation or postoperative care which is not administered in the operating room in the presence of a surgeon and under his direct charge, and such indeed is the law."

An analysis of the preceding cases indicates that while most of the decisions can be reconciled with existing principles of agency law, *Yorston* and *Rockwell,* along with a Federal Court of Appeals case, *Mazer v. Lipschutz,* 327 F.2d 42 (3rd Cir. 1964) represent mutations of agency law.[7]

One particular aspect of this problem deals with the potential liability of a staff surgeon or a chief of service who is sought to be held liable because of his supervisory duties and functions relating to those under him. There is no case in Pennsylvania where liability has been imposed on

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a doctor solely because he was the head of the department or chief of service. As can be seen from the discussion of the preceding cases, something more than right to control was present.

Texas Reversal

In a Texas case on point, *Terrell v. Cockrell*, 286 S.W.2d 950 (1956), a patient brought suit against a hospital supervisor for damages allegedly sustained as a result of the negligence of hospital employees. The theory of liability was that defendant had a duty to "supervise, direct and manage . . . employ and retain competent, efficient persons . . . to assist in the supervision, direction and operation . . . of said hospital" and that as supervisor and chief of service he was liable for the negligence of those subordinate to him.

The trial court found for plaintiff against the superintendent doctor, but the appellate court of Texas reversed, holding that even though the doctor had the right to hire and fire and supervise employees and had an exclusive eleven-year contract with the hospital, the supervisor was not liable for the negligence of subordinates.

The court found that even though the superintendent had control and supervision over the staff, he was not an independent contractor in the operation of the hospital and could not be held liable under the doctrine of *respondeat superior* for the negligence of a subordinate resulting in injury to the patient.[8]

The result reached is in accord with general principles of liability, *Commonwealth to the Use of Orris v. Roberts*, 392 Pa. 572 (1958); *Miller v. Allegheny*, 24 D.&C.2d 792 (1961).

Threat to Medical Service

To paraphrase a statement quoted with approval by the Supreme Court of Pennsylvania, ". . . to permit a recovery against a surgeon would be to establish a principle which would undoubtedly impair medical service to hospital patients, as well as medical education and training. It will be difficult if not impossible to fill the position of staff surgeon, if physicians know they will be held liable for all the torts and wrongs committed by a large body of subordinates, in the discharge of duties it would be utterly impossible for the staff surgeon to discharge in person; *Commonwealth to the Use of Orris v. Roberts, supra*, at page 577.

As can be seen from the previous discussion, the full impact of *Flagiello* has not yet been felt. However, it can now be hoped that in the area of a physician's vicarious liability for the negligence of hospital employees, the law will take a turn for the better. Courts will not be required to distort agency principles for reasons to impose liability on a physician because now the injured patient has a remedy against the hospital.

It can be reasonably anticipated that there will be no further extensions of a surgeon's vicarious liability. Logically, the Pennsylvania courts should reverse the holding of *Yorston* and *Rockwell* when the appropriate cases are presented; however, this prospect seems unlikely. One certain consequence of the *Flagiello* decision will be a great increase in the number of law suits filed against hospitals. This increase is already apparent. It is interesting to speculate as to how many of these hospital suits would have been filed against physicians if hospitals could still claim the protection of the eleemosynary defense. It seems certain that some of these suits would have been filed against physicians. At least some of the attorneys representing claimants appear to be following the theory that where there is a possible claim against both a physician and a hospital, suit should be filed only against the hospital. This will present before the jury only a faceless corporation as a defendant, rather than an individual physician who may impress the jury that he is fighting for his professional future.

Cases Cited

1. Arkansas: *Helton v. Sisters of Mercy of St. Joseph's Hosp.*, 234 Ark. 76, 351 S.W.2d 129 (1961); Maine: *Jensen v. Maine Eye and Ear Infirmary*, 107 Me. 408, 78 Atl. 898 (1910); Massachusetts: *Simpson v. Truesdale Hosp.*, 338 Mass. 787, 154 N.E.2d 357; Missouri: *Stedem v. Jewish Mem. Hosp. Assn. of Kansas City*, 239 Mo. App. 38, 187 S.W.2d 469 (1945); South Carolina: *Lindler v. Columbia Hosp.*, 98 S.C. 25, 81 S.E. 512 (1914).

2. Kentucky: *Mullikan v. Jewish Hosp. Ass'n. of Louisville*, 348 S.W.2d 930 (Ky. 1961); Michigan: *Parker v. Port Huron Hosp.*, 361 Mich. 1, 105 N.W.2d 1 (1960); Montana: *Howard v. Sisters of Charity of Leavenworth*, 193 F. Supp. 191 (D. Mont. 1961); Nevada: *Nev. Rev. Stat.* §41.480 (1961); New York: *Bing v. Thunig*, 2 N.Y.2d 660, 163 N.Y.S.2d 3, 143 N.E.2d 3 (1957); Oregon: *Hungerford v. Portland Sanitarium and Benev. Ass'n.*, 235 Ore. 412, 384 P.2d 1009 (1963); Pennsylvania: *Flagiello v. Pennsylvania Hosp.*, 417 Pa. 486, 208 A.2d 193 (1965); Wisconsin: *Kojis v. Doctor's Hospital*, 12 Wis.2d 367, 107 N.W.2d 131 (1961) (abandoned as to paying patient); *Duncan v. Steeper*, 17 Wis.2d 226, 116 N.W.2d 154 (1962) (abandoned completely). Other states that have rejected the eleemosynary defense are: Alaska, Arizona, California, Delaware, Florida, Iowa, Kansas, Minnesota, New Hampshire, North Dakota, Oklahoma, Utah, and Vermont.

3. Connecticut: *Edwards v. Grace Hospital Soc.*, 130 Conn. 568, 36 A.2d 273 (1944) (plaintiff produced no evidence of corporate negligence); *Evans v. Lawrence & Memorial Associated Hospitals*, 133 Conn. 311, 50 A.2d 443 (1946) (hospital liable for negligence in selection of employee, but not for negligence of competent employee); Texas: *Medical and Surgical Memorial Hosp. v. Cauthorn*, 229 S.W.2d 932 (Tex. 1949) (hospital liable for injuries caused by improvised heat cradle); Indiana: *Ball Memorial Hosp. v. Freeman*, 196 N.E.2d 274 (Ind. 1964) (injuries resulting from the injection of a deleterious solution to patient).

4. The "Beneficiary Rule" states are: Indiana: *Richardson v. St. Mary's Hosp.*, 191 N.E.2d 337 (Ind. 1963); Louisiana: *Jurjevich v. Hotel Dieu*, 11 So.2d 632 (La. 1943); Nebraska: *Miller v. Concordia Teachers College of Seward*, 296 F.2d 100 (8th Cir. 1961) (educational corporation is not liable to student who is beneficiary); North Carolina: *Williams v. Randolph Hosp.*, 237 N.C. 387, 75 S.E.2d 303 (1953) (hospital immune where not negligent in selection and retention of employee); Rhode Island: *Basabo v. Salvation Army*, 35 R.I.22, 85 Atl. 120 (1912) (charity liable for death of stranger); R.I. GEN. LAWS: § 7-1-22 (1956) provides that no charitable hospital "shall be liable for the neglect of its officers, agents or employees in the management or care of any inmates of such hospital." *Fournier v. Miriam Hosp.*, 175 A.2d 298 (R.I. 1961) (hospital granted immunity to patient); Virginia: *Roanoke Hosp. Ass'n. v. Hayes*, 204 Va. 703, 133 S.E.2d 559 (hospital not immune to invitee); West Virginia: *Meade v. St. Francis Hosp. of Charleston*, 137 W. Va. 834, 74 S.E.2d 405 (1953) (hospital immune to paying patient); Wyoming: Although this state appears not to have expressly passed on charitable liability to persons other than beneficiaries, from the language of *Bishop Randall Hosp. v. Hartley*, 24 Wyo. 408, 160 Pac. 385 (1916)

this jurisdiction seems to have adopted the beneficiary rule. (Immunity to patient where not negligent in selection and retention of employee.)

5. Alabama: *Tucker v. Mobile Infirmary Ass'n.*, 191 Ala. 572, 68 So. 4 (1915); Georgia: *Morton v. Savannah Hospital*, 148 Ga. 438, 96 S.E. 887 (1918); Idaho: *Wheat v. Idaho Falls Latter Day Saints Hosp.*, 78 Idaho 60, 297 P.2d 1041 (1956); Mississippi: *Mississippi Baptist Hospital v. Holmes*, 55 So.2d 142 (Miss. 1951); North Carolina: *Williams v. Union Co. Hosp. Ass'n.*, 234 N.C. 536, 67 S.E.2d 662 (1951); Washington: *Pierce v. Yakima Valley Mem. Hosp.*, 43 Wash. 2d 162, 260 P.2d 765 (1953).

6. Some examples are: "Mrs. Flagiello was not a charity patient but a paying patient in the hospital." (at p. 488), "Whatever Mrs. Flagiello received in the Pennsylvania Hospital was not bestowed on her gratuitously. She paid $24.50 a day for the services she was to receive." (at p. 491), and "To say that a person who pays for what he receives is still the object of charity is a self-contradiction in terms." (at p. 492).

7. For a thorough discussion as to how these decisions fail to apply correct law and in support of an argument against the policy bases of these results, see Vol. 5, Villanova L. Rev., 290 (1959-60).

8. The Third Circuit Court of Appeals in *Brown v. Moore*, 247 F.2d 711 (C.A. Pa. 1957), cert. denied 78 S. Ct. 148, 255 U.S. 882, has held that under Pennsylvania law a doctor employed at a salary to run a private hospital as "medical director" was not an independent contractor, but was an agent of the hospital, with the result that the hospital would be liable for negligence of employees working under the director's direction and control.

SESSION '66

■ **The 1966 Annual Session of the Pennsylvania Medical Society will be held October 9-13 at the Penn-Sheraton Hotel in Pittsburgh.**

Cancer Group Sets Targets

Among current objectives of the Pennsylvania Division, Inc., American Cancer Society, headquartered in Harrisburg, are:

1. To reach 4,410 physicians with professional information on proctoscopy as part of a program to have proctological examinations included in regular checkups for people over age forty.
2. To work with the Pennsylvania Cancer Coordinating Committee in development of a new cancer detection program to be conducted in doctors' offices.
3. To persuade five hospitals to provide "Pap" tests for all adult females admitted.

In the War on Cancer

The American Cancer Society has invested nearly $4.9 million in Pennsylvania for cancer research during the 1960-65 period.

John Halloran, executive vice-president of the Pennsylvania Division, ACS, quoted an actual total of $4,893,755.

The largest amount of money granted in a single year to Pennsylvania scientists and institutions was $907,488 in the fiscal year ending in mid-1961.

Grants for 1964-65 totaled $800,912.

Drug Information Meet Set

Techniques for disseminating new-drug information will be aired June 25-26 when the newly-formed Drug Information Association meets in Chicago. Composed of representatives of the AMA and other medical organizations, and of paramedical groups, pharmaceutical firms, universities, and such government agencies as the FDA, the association aims "to further modern technology of communication in medical, pharmaceutical, and allied fields."

Abstracts of papers to be contributed for presentation at the meeting should be submitted before April 1 to the program chairman, Dr. O. H. Buchanan, Sterling-Winthrop Research Institute, Rensselaer, New York.

There is a $15 registration fee for association members, and one of $20 for nonmembers.

Practice Tip

Books you might want to refer to in regard to the subjects of sex education and family planning:

American Adolescents in the Mid-Sixties: National Council on Family Relations, 1219 University Avenue, S.E., Minneapolis, Minnesota 55414.

Your Marriage and the Law, by Harriet F. Pilpel and T. Zavin: Collier Books.

Healthy Attitudes Toward Love and Sex, by C. P. Trimbos: P. J. Kennedy & Sons.

Written Communication for Birth Control, by Bogue and Heiskanen: Community and Family Study Center, University of Chicago, Chicago, Illinois 60637.

Therapeutic Abortion, by H. Rosen: The Julian Press.

Sex in America, by H. A. Grunwald: Bantam Books.

Monitor Scans the Air

Philadelphia's environmental health laboratory is using a new tool in its efforts to check on radioactivity exposure levels in hospitals and industries and radioactivity in air, water, food, and milk.

The device is a $12,000 automatic monitoring instrument which measures alpha and beta particles and, in sequence, can check up to one hundred samples of various items, printing out results on tape.

Because the new counter can detect very low levels of radioactivity as well as high ones, it will serve as an early warning system on radio activity.

State Towns Want Doctors

Three Pennsylvania communities are among thirty-six small towns in twenty-one states which have built or are building two-doctor medical centers under the American Medical Association-Sears Roebuck Foundation Community Medical Assistance Program.

The AMA reports that among communities now searching for physicians are Linesville, Jonestown, and Boswell, all in Pennsylvania.

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Deaths

○ **Isaac L. Anton,** Philadelphia; University of Pennsylvania School of Medicine, 1929; age, 72; died February 2, 1966. Dr. Anton is survived by his wife, a daughter, a son, and three sisters.

○ **Theodore Baker, Jr.,** Kingston; Jefferson Medical College, 1933; age, 58; died January 11, 1966. Dr. Baker, who was licensed in Minnesota, New York State, and Colorado, as well as in Pennsylvania, was a pathologist at Nesbitt Memorial Hospital. He belonged to several professional organizations. His late father had also been a physician. The survivors of Theodore Baker, Jr., include his wife, a son, a sister, and a brother.

John J. Cacia, Evansville, Indiana (formerly of Donora); Jefferson Medical College, 1932; age, 60; died February 1, 1966. Dr. Cacia belonged to the Vanderburg County (Indiana) Medical Society and the American Medical Association. His survivors include his wife, three daughters, and a son.

○ **Grace L. Moyer Daley,** Allentown; Woman's Medical College, 1927; age, 63; died January 18, 1966. Formerly a medical missionary to India, Dr. Daley had subsequently served at Cresson Sanitarium, and for the past ten years at Allentown Hospital, where her husband, Norman L. Daley, M.D., is also on the staff. Other survivors are three sisters and two brothers.

Thomas A. Duffy, Millville, New Jersey (formerly of Plains); Jefferson Medical College, 1928; age, 61; died December 29, 1965. A member of the staff of Scranton's Mercy Hospital for many years, Dr. Duffy had also been physician for the Plains Township school district. He formerly belonged to the Luzerne County Medical Society and the PMS. Surviving are two sisters and a brother.

○ **Kenneth DuB. Ervin,** Baederwood; Hahnemann Medical College, 1940 (first in his class); age, 51; died January 22, 1966. Dr. Ervin is survived by his wife, two daughters, and a sister.

○ **Shem A. Everett,** Freeland; Jefferson Medical College, 1907; age, 87; died January 9, 1966. When he retired in October, 1965, Dr. Everett had served his community for more than fifty years, and was its oldest practicing physician. He had been very active in church work. Among his survivors are two daughters and two sons.

○ **John L. Green,** Philadelphia; McGill University School of Medicine, 1927; age, 68; died January 18, 1966. Dr. Green was on the staff of Nazareth Hospital for twenty-five years, worked at the Byberry State Hospital subsequently, and then became medical director of the Eastern State School and Hospital, Bucks County. He belonged to the American Pediatric Society. His wife and two daughters survive.

○ **Francis S. Hickey,** Philadelphia; Jefferson Medical College, 1924; age, 65; died January 25, 1966. Until his retirement in 1961, Dr. Hickey had been chief of surgery at Nazareth Hospital. A Fellow of the American Society of Abdominal Surgeons, he also belonged to the Industrial Medical Society and to the Knights of Columbus. Surviving are four daughters and a son, John S. Hickey, M.D.

○ **Patrick J. Hughes,** Homestead; University of Pittsburgh School of Medicine, 1927 (first in his class); age, 65; died January 8, 1966. Dr. Hughes, a staff member at St. Francis and Homestead hospitals, was a member of the American College of Surgeons and the International College of Surgeons. A former member of the Homestead School Board, he was also a director of the Pittsburgh National Bank and was active in church and fraternal organizations. Presidents Truman and Kennedy honored him for many years' activity in behalf of Selective Service. His survivors include two sons, three daughters, three sisters, and three brothers.

○ **Ralph D. Killen,** Philadelphia; Hahnemann Medical College, 1913; age, 74; died January 24, 1966. Dr. Killen had practiced for more than forty-three years. Surviving him are his wife, a daughter, a son, and a sister.

○ **Mary C. E. Swalm Laird,** Philadelphia; Woman's Medical College, 1913; age, 85; died January 20, 1966. Dr. Laird's fifty years of service to medicine were recognized in 1963 by the State Society and by the Woman's Medical Society. She had served under the Philadelphia Department of Welfare, doing medical work in the House of Correction, the Home for the Indigent, and the Philadelphia County Prison. Two brothers, C. J., and William A. Swalm, had also been physicians. There are no known survivors.

○ **Edward A. Mullen,** Philadelphia; Jefferson Medical College, 1917; age, 73; died January 22, 1966. Dr. Mullen had served on the staffs of several hospitals in Philadelphia, Bethlehem, and Allentown, and had taught at the Philadelphia College of Pharmacy and at the hospital of the University of Pennsylvania. He is survived by his wife and a son.

○ **Basil T. Owens,** Aliquippa; Jefferson Medical College, 1919; age, 69; died January 22, 1966. In 1960, Beaver County Medical Society named Dr. Owens "General Practitioner of the Year." He was a founder of the Aliquippa Hospital, and a member of the Aliquippa Chamber of Commerce and of the American Legion. He is survived by his wife, a daughter, a son, and two sisters.

○ **Damon B. Pfeiffer,** Baederwood; Johns Hopkins University School of Medicine, 1906; age, 88; died January 7, 1966. Dr. Pfeiffer was formerly an associate professor of surgery at the University of Pennsylvania School of Medicine and surgeon-in-chief at Lankenau, Methodist, and Abington Memorial hospitals. At the latter, he was one of the original members of the board of directors. He was a past president of the Philadelphia Academy of Surgeons. There are no known survivors.

○ **Russell E. Sangston,** Uniontown; University of Rochester School of Medicine and Dentistry, 1933; age, 60; died January 24, 1966. Dr. Sangston belonged to several professional organizations. Surviving are his wife and two daughters.

○ **Roy L. Scott,** Buffalo, New York (formerly of Erie County); University of Pennsylvania School of Medicine, 1916; age, 75; died January 9, 1966. Dr. Scott, 1939-65 trustee of Blue Cross of Western New York, headed the Blue Shield program for the same area during the last eleven years of his life. He belonged to several professional organizations, and was a former president of the Erie County Medical Society. His two late brothers, Stanley of Charleroi and George of Roscoe, were also physicians. He is survived by a daughter.

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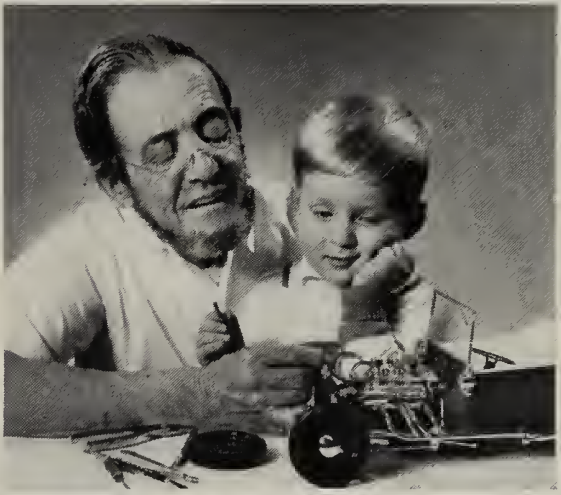

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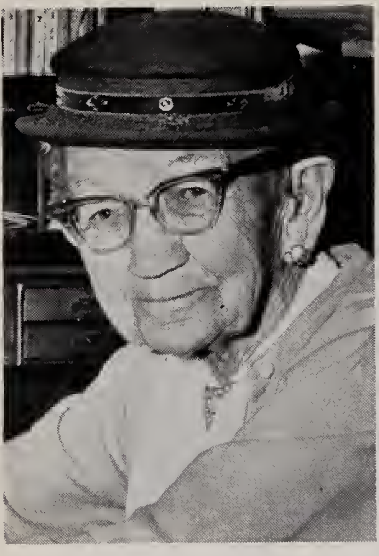

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Talk Your Way to Safety

Philadelphia researchers have discovered that you can talk your way to safety.

They found that the trick is to hold group discussions on accidental injuries. And they cite the case of one of their "pupils" who saved the life of a woman through mouth-to-mouth resuscitation learned at one of the "accitalks."

The project, supported by the federal government and conducted by the Philadelphia Department of Public Health, found that the talks reduced accidental injuries 17 percent.

- Abnormal cell growth (including evidence of cancer) discovered in test dogs, halted clinical studies on an experimental oral contraceptive (a combination of Mestranol and Ethynerone) developed by Merck Sharp & Dohme, the Food and Drug Administration reported.

New Drugs, Products

K-Lyte (in water, potassium citrate, potassium bicarbonate, potassium cyclamate), Mead Johnson Laboratories. Effervescent tablet that makes a lime-flavored drink for treatment of potassium deficiency.

Ekoline 10, Smith Kline Instrument Company. Lightweight, compact, portable ultrasonic device for detecting the presence of space-occupying lesions in the head.

Quantiflex Wall-Mounted Anesthesia Machine, National Cylinder Gas Division, Chemetron Corporation. For dental clinics and hospitals where floor space and working areas are at a premium.

Multi-Mount Vapo$_2$-Tent, National Cylinder Gas Division, Chemetron Corporation. Ice-cooled, high-humidity oxygen tent to be mounted on a carrier or suspended from the head of a bed; especially useful in pediatrics.

Duck-embryo killed-virus rabies vaccine, Eli Lilly and Company. For pre-exposure immunization of those in "high-risk" groups. The only rabies vaccine recommended for such use.

Prescription Paregoric

The state Drug, Device, and Cosmetic Board has recommended to the state Advisory Health Board that paregoric be made a prescription item.

Compounds from which paregoric cannot be extracted easily would be exempted.

Abuse resulting from uncontrolled sale of paregoric spurred efforts to make it a prescription item.

Statistics on Crippling

Of the more than 29 million Americans estimated to suffer from crippling conditions are 5-6 million school-age children, according to the Easter Seal Society. The prevalence of these conditions nationally and in Pennsylvania is reported as follows:

	Nationally	Pennsylvania
Arthritis and rheumatic diseases	12,000,000	284
Hearing impairments	2,774,000	400
Cerebral palsy	550,000	2,807
Multiple sclerosis, related conditions	500,000	126
Muscular dystrophy	3,000,000	197
Orthopedic problems, and others *	3,000,000	9,203
Strokes	1,800,000	513

(* *accidental injury, birth defects, polio, post-surgery, speech disorders*)

Doctor,

Here is the Abbott anorectic program designed to meet the individual needs of your overweight patients.

ABBOTT

mood elevation

Abbott
Anorectic
Program

DESOXYN® Gradumet® (methamphetamine hydrochloride)

Smooth appetite control plus mood elevation.

The obese patient on a diet often has to battle depression as well as overweight. Desoxyn Gradumet helps the dieter in both battles by elevating the mood while it curbs the appetite. Thanks to the Gradumet, medication is smoothly released all-day from a single oral dose.

If she can't take plain amphetamine, put her on DESBUTAL® Gradumet

Calms anxieties; controls compulsive eating.

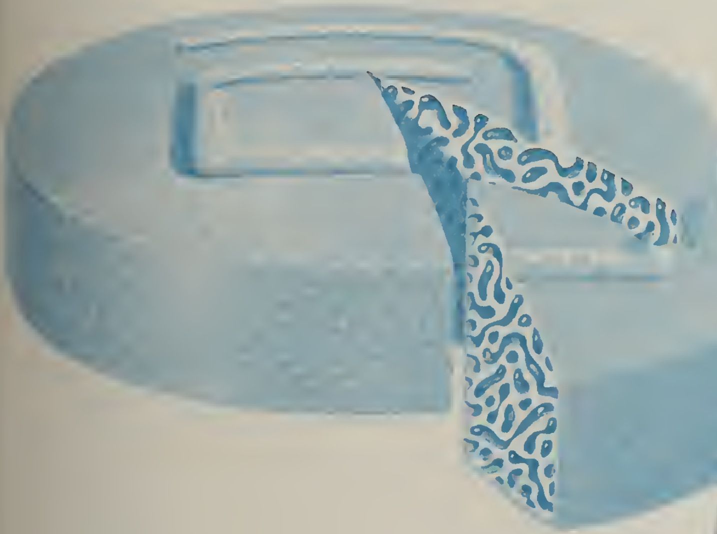
Desbutal Gradumet provides 2 drugs in 2 tablet sections, combined back to back to form a single tablet. One section contains Desoxyn to curb the appetite and lift the mood; the other contains Nembutal® (pentobarbital) to calm the patient and counteract any excessive stimulation.

Both drugs are released in an effective dosage ratio throughout the day.

controlled release

Abbott
Anorectic
Program

Not all long-release vehicles are the same. Here is why the Gradumet is different and what it means for your overweight patients.



The release action is purely physical and relies on only one factor common to every patient: gastrointestinal fluid. There is no dependence on enteric coatings, enzymes, motility, or an "ideal" ion concentration in the gastrointestinal tract.

Your patients get a measured amount of medication, moment by moment, throughout the day.

They are not subjected to ups and downs of drug release . . . or to erratic release from patient to patient . . . or to erratic release in the same patient from day to day.

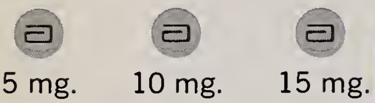
That's why the Gradumet provides controlled-release as well as long release.

Perhaps you saw the Gradumet model demonstration which shows that the release is entirely physical. When fluid is added, the drug in the outer ends of the channels dissolves. As fluid penetrates deeper into the channels, there is a continuous release of medication. The rate of release is rigidly controlled by the size and number of channels.

choice of 5 strengths

Abbott
Anorectic
Program

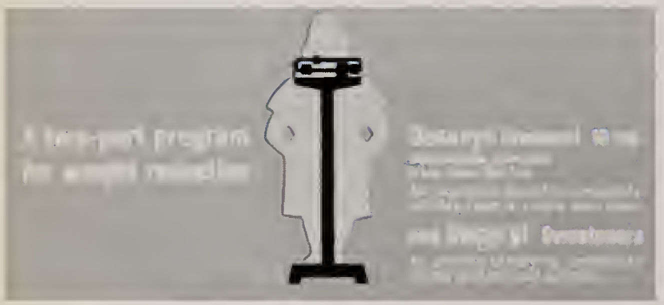
DESOXYN Gradumet
Methamphetamine Hydrochloride in Long-Release Dose Form



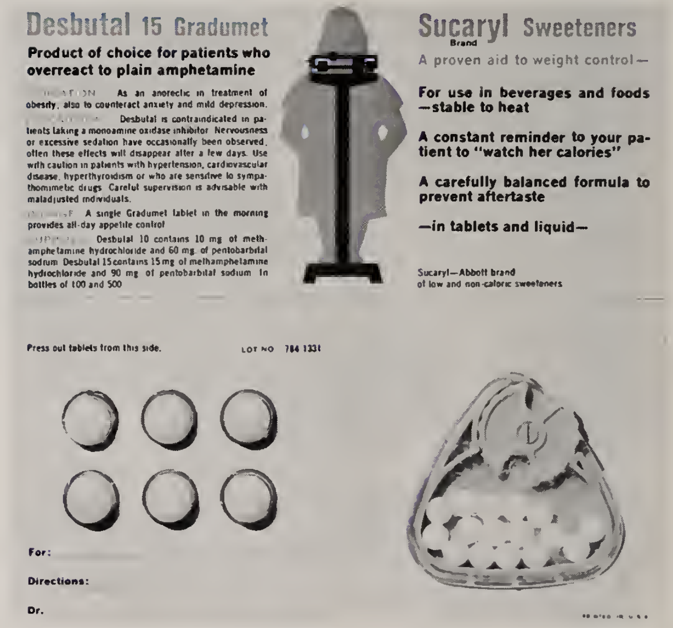
DESBUTAL 10 Gradumet
10 mg. Methamphetamine Hydrochloride,
60 mg. Pentobarbital Sodium

DESBUTAL 15 Gradumet
15 mg. Methamphetamine Hydrochloride,
90 mg. Pentobarbital Sodium

samples available



Each sample contains 6 tablets and a filled Sucaryl® Sweetener dispenser. For a supply, write Abbott Laboratories or ask your Abbott man.



Desbutal 15 Gradumet

Product of choice for patients who overreact to plain amphetamine

[illegible] As an anorectic in treatment of obesity, also to counteract anxiety and mild depression.

[illegible] Desbutal is contraindicated in patients taking a monoamine oxidase inhibitor. Nervousness or excessive sedation have occasionally been observed, often these effects will disappear after a few days. Use with caution in patients with hypertension, cardiovascular disease, hyperthyroidism or who are sensitive to sympathomimetic drugs. Careful supervision is advisable with maladjusted individuals.

[illegible] A single Gradumet tablet in the morning provides all-day appetite control

[illegible] Desbutal 10 contains 10 mg. of methamphetamine hydrochloride and 60 mg. of pentobarbital sodium. Desbutal 15 contains 15 mg of methamphetamine hydrochloride and 90 mg. of pentobarbital sodium. In bottles of 100 and 500

Sucaryl Sweeteners
Brand

A proven aid to weight control—

For use in beverages and foods —stable to heat

A constant reminder to your patient to "watch her calories"

A carefully balanced formula to prevent aftertaste

—in tablets and liquid—

Sucaryl—Abbott brand
of low and non-caloric sweeteners

Press out tablets from this side.
LOT NO 784 1331

For:
Directions:
Dr.

economy

Patients, in many cases, save enough to get five weeks of medication for the price of four, compared to other leading long-release anorectics.

CONTRAINDICATION: Desoxyn and Desbutal are contraindicated in patients taking a monoamine oxidase inhibitor.

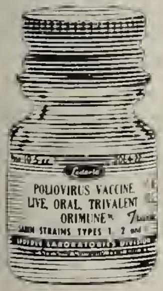
PRECAUTIONS: Use with caution in patients with hypertension, cardiovascular disease, hyperthyroidism, old age, or those sensitive to sympathomimetic drugs or ephedrine and its derivatives. Careful supervision is advisable with maladjusted individuals.

ABBOTT

Gradumet—long-release dose form, Abbott: U.S. Pat. No. 2,987,445.
Sucaryl—Abbott brand of low and non-caloric sweeteners.

601060

Doctor...two important Lederle products for routine office procedures

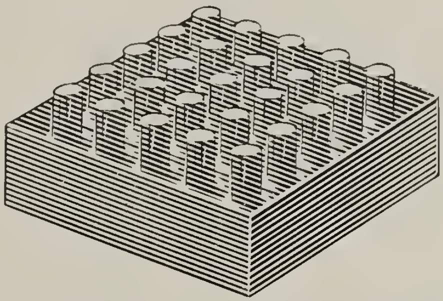


single-dose vials for convenient and economical polio immunization

ORIMUNE®
POLIOVIRUS VACCINE, LIVE, ORAL
TRIVALENT
SABIN STRAINS, TYPES 1, 2 and 3

Fast, simple administration—and economy for the patient—make the new 0.5 cc single-dose vial of ORIMUNE Trivalent ideal for private practice. (Packaged 5 to a box with 5 sterilized disposable droppers for your convenience).
(Also available in 2 cc and 2 drop dosage forms).
Only 2 doses required for complete, initial immunization for patients more than a year old.

Effectiveness—may be expected to confer active immunity against all three types of poliovirus infection in at least ninety percent of susceptibles only if given at full dosage, as directed. No characteristic side effects have been reported. There are, however, certain contraindications. These are, broadly: acute illness, conditions which may adversely affect immune response, and advanced debilitated states. In these, vaccination should be postponed until after recovery.
In infants vaccination should not be commenced before the sixth week of life. Do not give to patients with viral disease, or if there is persistent diarrhea or vomiting. ORIMUNE and live virus measles vaccine should be given separately.
Dosage—initial immunization: two doses each given orally at least 8 weeks apart. (Give a third dose to infants at 10-12 months). Booster immunization: one dose, given orally. See package literature for full directions.



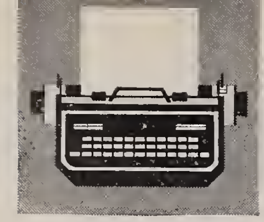
simplifies routine screening
TUBERCULIN, TINE TEST
(Rosenthal) Lederle

Swab • Uncap • Press • Discard

Comparable in accuracy and reliability to older standard intradermal tests*, but faster and easier to use. Since TINE TEST is relatively painless it should receive greater patient acceptance. Results are read at 48-72 hours. The self-contained, completely disposable unit requires no refrigeration and is stable for two years.
Side effects are possible but rare: vesiculation, ulceration or necrosis at test site. Contraindications, none; but use with caution in active tuberculosis. Available in boxes of 5 (new individually-capped unit); cartons of 25.

*Rosenthal, S. R., Nikurs, L., Yordy, E., and Williams, W.: Scientific Exhibit Presented at the Annual Meeting of the National Tuberculosis Association, Chicago, Illinois, May 30-June 2, 1965.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York Lederle
605-6-3390



EDITORIALS

We Doctors Need All The Help We Can Get

Mark Estren, manager of radio station WESU-FM at Wesleyan University, Middletown, Connecticut, is the source of our text for this exhortation.

In a letter to the *AMA News* in February, Mr. Estren pointed out that recent success in lowering the incidence of venereal disease in WESU-FM's broadcast area was not attained through the unaided efforts of doctors. He pointed out that "a large part of the reason for the decline was an increased public awareness about the existence of VD, of its symptoms, and of its curability."

Mr. Estren cited his station's role, in its locality, in helping the AMA fight VD. We cannot help becoming acutely aware of the important part which communications media play in this continuing campaign.

But we need a wider interpretation of these media's importance. Most doctors experienced in medical society activities realize how vital are good relationships with press, radio, and television personnel. Although these relationships are not always as good as might be desired, medical groups continue to explore their possibilities.

But are all of us *fully* cognizant of the need for arousing public interest in our medical organizations' efforts? Endeavors in such fields as ethics, areawide planning, or emergency medical service could benefit if, with public relations people's help, their directors were to tell the public of each project's aims and accomplishments. We may happily discover a knowledgeable, cooperative Mr. Estren in practically every neighborhood!

But not only the voluntary services of media should enlist our participation. We should remember, too, that a radio or television station, or a newspaper, is a business enterprise; we can avail ourselves of the services these media offer for sale.

In that same issue of the *AMA News,* we find a white paper on the proposed AMA dues increase. The Board of Trustees believes that "an institutional advertising program" is needed. "Such a program, utilizing various advertising and communications techniques, would be designed as an educational tool to familiarize the public with the significant accomplishments of the AMA and the medical profession in bringing better health care to the American people!

"Surveys conducted by the Opinion Research Corporation, Gallup, and others, show that there is a solid base of good will toward the AMA and the profession, among the people. The Board believes the AMA should build on that base, not rest on it!" We agree.

The medical profession needs all available help. Let us miss no opportunity to secure good will and cooperation. Above all, let us value in its true light our need for the services of communications media in informing our fellow citizens about our work.

How Dependent Are We On the Drug Industry?

Pharmacognosy, pharmacodynamics, pharmacology, pharmaceutics, pharmacy—put them all together and they spell *medicine*—medicine for your patient and mine.

But one doctor alone cannot put them all together without help. The fact that for so many centuries, doctors have appreciated this need for assistance in preparing medicaments, has created one of the most enduring patient care team relationships on record.

Since ancient times, the pharmaceutical producer, the pharmacist, and the physician have been co-workers. The venerable age and the flourishing condition of this relationship attest to its historic success.

Our musings were prompted by our having received in the mail an item of a genre unknown to the critic of classical literature: the press release. Editors are so familiar with this art form, however, as sometimes to treat it lightly. But this particular release was thought-provoking, calling attention as it did to the one hundredth birthday of Parke, Davis and Company.

This organization's success story follows traditional American lines: a small local shop grows steadily and mightily, by virtue of high quality products, pervasive integrity, and consistently good practices at all levels. Add research and development to drug production, and the once-small shop develops into an international corporate giant.

Parke-Davis is one of the world's largest manufacturers and distributors of pharmaceutical products; among available statistics are: many plants and branches throughout the world, 65,000 stockholders, and 313 consecutive dividends.

Deserving emphasis is the company's position as an innovator of biological medicaments (it holds Biological License Number 1 from the federal government), and as a leader in development and manufacture of glandular, hormonal, and vitamin products.

But for an even more fitting editorial tribute: the nature of Parke-Davis' service, and of its position on the patient care team, places the company in that group of institutions which stand apart from more narrowly commercial enterprises. Symbolic of the organization's nature is its well-known motto, *"Medicamenta Vera,"* epitomizing the very essential old-fashioned integrity that must play a role as medicaments increase in potency and in capability for benefit or harm.

We cannot practice medicine without the pharmaceutical supply house. Let us honor *all* of these great institutions as we take note of the centennial of Parke-Davis. As physicians, we cannot manage much of a future without *medicamenta vera.*

• Opinions expressed in contributions to PENNSYLVANIA MEDICINE are those of the writers, and do not necessarily reflect the views of the Pennsylvania Medical Society.

Mail Call

Dr. Packer Says 'Thanks'

It is my sincere pleasure to extend to the Pennsylvania Medical Society my heartfelt thanks for the Fifty-Year service plaque which was presented to me at the February meeting of the Bucks County Medical Society. Although I have had no contact with the bulk of the Society's members, the feeling of group fellowship is most warmly appreciated.

Jessie E. Packer, M.D.,
Newtown.

Gratifying Impact

You ran an editorial in August, 1965, entitled, "Nearby Areas Lack Glamour." I read this before I left for the Far East, and it did stir up considerable thought.

Recently we have received a call from an Indian mission in this country, and we are going out there in August for a month. When I get back, I intend to tell you whether or not nearby areas really lack glamour.

At any rate, your little editorial did stir up some action. I don't know where it is going to lead, but will tell you later.

John D. Paul, Jr., M.D.,
Lancaster.

Practical Nurse Licensure

On January 14, Governor Scranton signed into law the mandatory licensure bill for practical nurses. A provision allows a ninety-day waiver period to accommodate those currently practicing without a license who may wish to qualify.

Our organization is gravely concerned about this waiver period and the possibility that unqualified practitioners could become licensed. We realize that there is a shortage of nurses, but we cannot justify a substitution of quantity for quality.

In addition to other proofs of qualifications, submitted to the State Board of Nurse Examiners, certifications of an applicant's competency will be required from: a physician or a dentist, a practical nurse, and a registered nurse (all currently licensed to practice in Pennsylvania), and one employer. Many of your members will be requested to sign these certifications.

The certification (according to an original draft of the waiver application), will require the signer to certify to: personal acquaintance with the applicant, the moral character of the applicant and his or her habits with regard to alcohol and narcotics, and, on the basis of personal observation of the applicant in the practice of practical nursing, to recommend him or her for a license by waiver of nursing education and examination requirements.

Grace A. Geyer, LPN,
President, Licensed Practical
Nurses Association of
Pennsylvania.

In Memory of Dr. McCall

I am writing to announce that a group of his former residents and colleagues in Pittsburgh have established a yearly lectureship in honor of Milton J. McCall, M.D.

At the time of his death in 1963, Dr. McCall was professor and chairman of the department of obstetrics and gynecology at the University of Pittsburgh School of Medicine.

The first lecture is scheduled for May 6, 1966, in conjunction with the dedication of the McCall Auditorium at Magee-Womens Hospital; (the hospital houses the department of which Dr. McCall was chairman). The speaker, George B. Maughan, M.D., chairman of the department of obstetrics-gynecology at McGill University, will lecture on "The Future of Cancer Therapy."

Donald M. Mrvos, M.D.,
Pittsburgh.

Dr. Freeman Responds

Many thanks for your kind comments in the February issue of the Journal. It was a pleasure to do the compilation, and a satisfaction to finish it. With all best wishes,

Joseph T. Freeman, M.D.,
Philadelphia.

(See *PMS and the Older Patient,* page 80, February, 1966, Pennsylvania Medical Journal. The Editors.)

Museum Piece

Recently I read an account in one of our journals concerning a physician's gift of a lot of instruments to a medical museum—said to be the largest contribution given by a physician, etc.

The Lehigh County Medical Society has an excellent medical museum of which I have been appointed curator by our board of trustees; at least seven hundred different items are on display in two large antique cases in the Allentown General Hospital lobby. We have many more items that could be displayed if only we had the room.

All these artifacts were gifts to the society from local physicians and friends—some still living and others deceased. Families of some of the latter had the items in escrow, giving them to the society when an announcement was made in the newspaper that we would appreciate gifts, as well as leads concerning medical instruments.

Dr. Robert Schaeffer, who died about a year ago, and who was a past president of the State Society, gave well over eight hundred instruments to the county society—quite a few of which are on display in our cases; others are in reserve, and many were turned over to the Allentown Hospital as reserve instruments, since they were not actually antiques.

Dr. Schaeffer's instruments are in exexcellent condition, and we are very proud of them—as we are of the entire display.

Morgan D. Person, M.D.,
Allentown.

From Bucharest

For an exchange of medical information, we suggest sending you *The Rumanian Medical Review*, entirely in English, and reports on medical books recently printed in our country—in exchange, receiving your valuable publications.

They would be a welcome addition to our library, visited daily by hundreds of doctors.

Hoping to hear soon favorably from you,

Dr. Dimitri Nanu, Director
Medical Documentation Centre
of the Ministry of Health and
Social Welfare, Bucharest,
Rumania.

MEDICAL SOCIETY NEWS

Panels, Speakers, County Leaders Ready For the Annual Officers' Conference

The high point of the 1966 Officers' Conference in Harrisburg April 28-29 will be a panel discussion on medicare, the meeting theme.

With George W. Moore, M.D., a member of the conference committee, as moderator, the panel will consist of:

Social Security representative—Mr. Arthur Hess, director, bureau of health insurance, Social Security Administration, Baltimore.

Hospital administrative representative—Mr. Richard Suck, administrator, St. Luke's Hospital, Bethlehem.

Insurance company representative—Sydney E. Sinclair, M.D., vice-president—medical affairs, Pennsylvania Blue Shield (part B contractor).

Physicians—Russell B. Roth, M.D., Erie, chairman of the American Medical Association council on medical service, and Ever L. C. Curtis, M.D., Gloucester, Massachusetts, of the AMA speakers bureau.

On the first day of the session, the panel will follow a keynote address by Edward R. Annis, M.D., Miami, former president of the AMA, and a welcoming address by PMS President William B. West.

A highlight of the first-day dinner meeting will be the presentation of the state Benjamin Rush Awards by John F. Hartman, Jr., M.D., chairman of the Council on Public Service.

Guest speaker Judge Harold C. Kessinger, of New Jersey, will talk on "The World's Greatest Adventure."

On the second day, individual breakfast sessions will be held for the various county officers. Sessions also will be held for county society attorneys and for specialty society representatives.

A general session following the breakfast meetings will be a "PG Course—The Three C's," which will dramatize functions of the State Society. Clarence J. McCullough, M.D., chairman of the PMS Board of Trustees and Councilors, will preside.

Samuel R. Sherman, M.D., chairman of the AMA Council on Legislative Activities, will spell out "Criticisms Facing Medicine" at the concluding conference luncheon. PMS President-Elect J. Everett McClenahan will preside.

FINAL EXAM—Edwin O. Daue, Jr., M.D., left, Harrisburg surgeon, checks the last of 10,500 *Your Health* columns of the State Society with Roy Jansen, PMS staff man who has written them six times a week, uninterruptedly, since 1933, and who now, at age seventy-seven, is retiring. Dr. Daue, the last of several "medical examiners" who checked Mr. Jansen's column material for scientific accuracy, had served since 1950. Another M.D. who formerly did this work was the late Walter F. Donaldson, for many years editor of the PENNSYLVANIA MEDICAL JOURNAL. *Your Health* has been provided by the PMS, gratis, to newspapers and radio stations throughout the state, but with Mr. Jansen's retirement, it will be discontinued.

Preliminary Call to The Annual Session

Allen W. Cowley, M.D., secretary of the State Society, has issued the following preliminary call to the PMS Annual Session:

"The 1966 Annual Session of the House of Delegates of the Pennsylvania Medical Society will be called to order in the Pittsburgh Room of the Penn-Sheraton Hotel, Pittsburgh, Pennsylvania, at 3:00 P.M., Sunday, October 9.

"All proposed amendments to the Constitution must be submitted to the office of the Secretary of this Society on or before June 9, 1966. Such amendments to the Constitution may be proposed upon the written petition of fifteen active members of the Society, or by the Committee on Constitution and By-laws."

Consultants Named

Drs. William E. Kelly, Philadelphia, Sydney E. Pulver, Merion, and B. Wheeler Jenkins, also of Philadelphia, have been named consultants to the PMS Commission on Mental Health.

PAOO Invites PMS Members to Session

The guest of honor at the annual meeting of the Pennsylvania Academy of Ophthalmology and Otolaryngology in Bedford May 18-22 will be Harry P. Schenck, M.D., Philadelphia.

Joint sessions will include a symposium on medicine and the law. Displays, golf, entertainment, an art exhibit, and special activities for the women also are planned.

The academy has invited State Society members to attend the meeting. Here are the individual programs:

Ophthalmology—Scientific sessions: symposia on changing trends for open-angle glaucoma and on ocular findings in cerebrovascular disease; instruction courses: practical gonioscopy, cryosurgery, physics and practical application, modern use of conjunctival flaps, practical orthoptics, eyes and automobiles, correction of amblyopia without occlusion, some aspects of industrial ophthalmology, and technique of indirect ophthalmoscopy.

Otolaryngology—Scientific sessions: symposium on diagnosis and treatment of head and neck tumors, indications for otologic surgery, current trends in intranasal surgery; instruction courses: adventures and misadventures in surgery of the ear, bronchoesophageal problems in children, audiology for the practicing otologist, and the dizzy patient.

For information, contact Joseph A. Cipcic, M.D., secretary, 1501 Locust Street, Pittsburgh 15219.

JUNIORS WITH PLANS—The Pennsylvania Medical Society chartered the first junior high school Future Physicians Club in the state at the Camp Curtin Junior High School in Dauphin County. Participating in the chartering ceremony were, left to right, Jerry Krantman, president and organizer of the club; Michael J. Leno, school sponsor; Mrs. J. Thomas Millington, health careers chairman of Dauphin County Woman's Auxiliary; Charles W. Woodcock, M.D., speaker at the meeting; and Wilson C. Everhart, M.D., medical student recruitment chairman, Dauphin County Medical Society. Clubs have also been started at several state senior highs.

Award Nominees Sought

County medical societies have been asked to make nominations by June 1 for the 1966 Occupational Health Awards of the State Society.

Members of county units are asked to recommend to their organizations any industry having an outstanding health service or facility.

PMS OFFICIALDOM

■ **FOR A COMPLETE list of State Society officials, AMA delegates, committee, council, and commission members, and staff, see the February issue. A complete list of county society presidents and secretaries can be found in the December, 1965, issue.**

Three Medicare Conferences to Go

Physicians in the central and northeast sections of the state are registering for three regional State Society medicare conferences to be held in their areas this month.

The first of the three will be at the Holiday Inn, State College, on April 3. Four days later, another meeting will be held at the Scranton Holiday Inn.

On April 20, the last of the seven regional sessions will take place at the George Washington Motor Lodge, Allentown.

Physicians planning to attend any one of the conferences are asked to signify their intention on the handy prepaid postcard in the March *Pennsylvania Medicine*.

The meetings are free, and a member of the State Society may attend any one of the meetings. In all cases, the hours will be from 1 to 5 p.m.

Experts will delineate information a physician needs about his responsibilities in the new federal and state medicare programs.

Participants are Thomas Georges, Jr., M.D., special assistant to the state secretary of public welfare (Part A, the hospital portion of medicare); Sydney E. Sinclair, M.D., vice-president—medical affairs, Pennsylvania Blue Shield (Part B, the voluntary medical insurance portion of medicare); and William B. Tollen, Ph.D., state commissioner of public assistance (the "pennsycare" program).

Speakers' Badge for Appel

James Z. Appel, M.D., Lancaster, president of the American Medical Association, will be one of a number of Pennsylvania physicians on the program of New Jersey's bicentennial celebration meeting May 14-18 in Atlantic City.

Dr. Appel is scheduled to present a scientific appraisal of the state society.

Other Pennsylvania physicians to take part include Drs. Frederick Harbert, Kelvin A. Kasper, J. Jay Jacoby, Otto C. Phillips, Lawrence E. Meltzer, Luther W. Brady, Jr., John J. Murphy, Henry J. Tumen, and William S. Blakemore.

What They Said At Medical Practice Day

A *Philadelphia Bulletin* story about the Medical Practice Day presented in Philadelphia March 5 by the State Society Commission on Rural Health, bore this headline:

"Little Towns Lure Young GPs With Promise of 'Good Life'."

A corps of speakers told several hundred medical students and their wives (in some cases, sweethearts), about the "good life," and also about some of the problems that go with it.

What They Said

Here is a selection of quotes from several of the speeches given at the session:

Bernard B. Zamostein, M.D., Philadelphia, chairman of the Philadelphia County Medical Society Committee on General Practice:

"I believe the most important reason for failure of young men to elect general practice has been simply the lack of self-confidence, a lack of having been exposed in medical school to the broad concepts of medicine, rather than to its narrow, limited, and fragmented specialties.

"The general practitioner as of today is in the most advantageous position. His status is once again beginning to assume a grand stature, both with the public and with his medical colleagues.

"The field is economically sound and rewarding, and a new field for clinical research in everyday problems of mankind is unbounded."

Arthur R. Wilson, M.D., president, Pennsylvania Academy of General Practice:

". . . we believe the Family Physician of today, and more especially the Family Physician of tomorrow is and will be just as much a specialist in his field as the surgeon or the otolaryngologist.

"If you like to have the heady wine of feeling that you are curing sick people and sending them out well, after your ministrations, remember that the General or Family Practitioner does treat the cases that are most easily cured and gives the man who treats restricted areas of the body the cases which often nobody can cure.

"We believe that with board certification, Family Physicians can do medicine's greatest job well and that they will receive the consideration of hospital staffs which we think they deserve."

GP OR NOT GP—Two young wives of medical students, right, get a firsthand report on rural family practice from Mrs. Ruth M. Hand of Pottsville, left, Schuylkill County extension home economist, and Mrs. Stephen B. Williams of Trappe-Collegeville, wife of a small-town GP.

Outside View

Mrs. Ruth M. Hand, extension home economist, Schuylkill County:

"We have cultural opportunities and . . . we can be anywhere within a short period of time.

"Educational opportunities for youngsters are good.

"Economic opportunities are improving.

"It's a place for individualists and you *do* have a *good* practice.

"A community cannot exist without a general practitioner. He is part of the very fiber of life in the community."

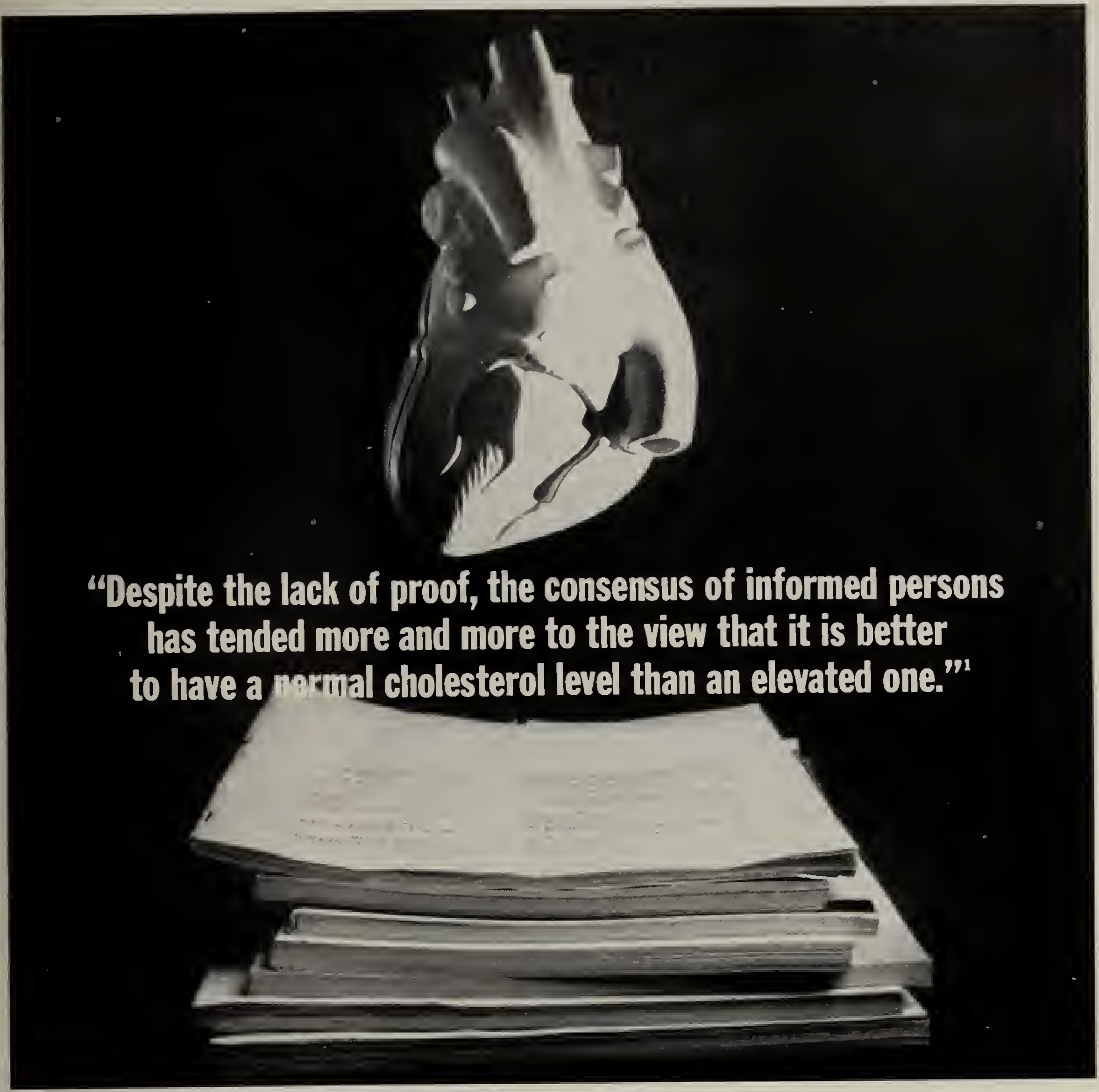
Orlo G. McCoy, M.D., first vice-president, Pennsylvania Medical Society:

"If you like hard work and people, if you can meet a big challenge, if you would like to set fractures, deliver babies, heal the sick, and help people —general practice is for you."

Mrs. Stephen B. Williams, small town GP's wife:

"There is much to be said in favor of living this type of life, and without hesitation, there are drawbacks. I am happy to say, however, that the assets far outnumber the liabilities.

"Recognition in a small town is one of the nicest things to come by."


"Despite the lack of proof, the consensus of informed persons has tended more and more to the view that it is better to have a normal cholesterol level than an elevated one."[1]

THE DRUG TO LOWER CHOLESTEROL...

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(ALUMINUM NICOTINATE)

- ☐ Reduces cholesterol by 15-30% in most patients[2]
- ☐ Matches nicotinic acid in effective reduction of elevated serum lipids—but with minimized tendency to cause flushing[3]
- ☐ Simpler, more practical than diet[1]

WALKER Laboratories

Division of Richardson-Merrell Inc., Mount Vernon, New York 10551

NICALEX Prescribing Information: COMPOSITIDN: Each tablet contains: Aluminum Nicotinate 625 mg.—a complex consisting of (approx.): Aluminum Hydroxydinicotinate 450 mg. and Nicotinic Acid 155 mg. (Equivalent in activity to Nicotinic Acid 500 mg.) INDICATIDNS: The primary indications for NICALEX (Aluminum Nicotinate) are to reduce the serum cholesterol and total lipid levels in hypercholesteremia and hyperlipemia. It may also be useful in reducing xanthomatous tissue cholesterol deposits. PRECAUTIONS AND WARNINGS: Patients with peptic ulcer, liver, or gallbladder disease should be observed closely while taking the medication. Diabetic patients may require adjustment of diet and insulin dosage in the event of decreased tolerance. Patients receiving anti-hypertensive drugs of the adrenal-blocking type should be watched for signs of postural hypotension. Occasional side effects of Nicotinic Acid in large dosage are decreased glucose tolerance (resembling diabetic-type curve) sometimes with glycosuria, temporary activation of peptic ulcer, transient jaundice, and metabolic disturbance of liver function without definite hepatic pathology. These side effects were found to be reversible upon discontinuing nicotinic acid therapy. Certain transitory skin changes have been observed with nicotinic acid therapy. These include: dryness of the skin and keratosis nigricans, particularly in axillae. SIDE EFFECTS: Administration of NICALEX (Aluminum Nicotinate) may produce temporary flushing and pruritus, also mild gastrointestinal distress, but these reactions are transient and apparently not serious. DDSAGE: The adult dose is 2 to 4 tablets t.i.d. with meals. HOW SUPPLIED: In bottles of 100 and 1000. CAUTION: Federal law prohibits dispensing without prescription. REFERENCES: 1. Parsons, W.B., Jr., Mayo Clin. Proc., 40:822, 1965. 2. Goldsmith, G.A., Amer. J. Dig. Dis., 9:651, 1964. 3. Boyle, E., Jr., J. Amer. Geriat. Soc., 10:822, 1962. U.S. Patent 2,970,082

WELCOME, NEW MEMBERS!

These M.D.'s have joined the State Society in recent months:

ALLEGHENY COUNTY

Morton S. Goldstein, Western Pennsylvania Hospital, Pittsburgh 15224.

Richard R. Jablonski, 1174 Greentree Road, Pittsburgh 15220.

Jerald M. Katz, 1304 North Highland Avenue, Pittsburgh 15206.

Otto F. Kessler, 5230 Centre Avenue, Pittsburgh 15232.

Perry C. Martineau, 1500 Fifth Avenue, McKeesport 15132.

William J. McVay, 3700 Fifth Avenue, Pittsburgh 15213.

Wayne W. Peternel, Veterans Administration Hospital, Pittsburgh 15240.

Evan D. Riehl, R. D. 1, Irwin 15642.

Hussein A. Roushdi, 220 Meyran Avenue, Pittsburgh 15213.

John A. Shoener, Sewickley Manor Apartments, 838 Thorn Street, Sewickley 15143.

Joseph M. Znoy, 20 Cedar Boulevard, Pittsburgh 15228.

ARMSTRONG COUNTY

Mark H. Wholey, 816 Woodland Avenue, Oakmont 15139.

BERKS COUNTY:

Thomas E. Shultz, The Reading Hospital, Reading 19602.

Abraham J. Strauss, St. Joseph's Hospital, Reading 19603.

William W. A. Walker, 150 North Eleventh Street, Reading 19601.

Herber E. Yeagley, Wyomissing Park Apartments, Reading 19607.

BRADFORD COUNTY:

Carlos Jaramillo, 731 South Main Street, Athens 18810

Ethem V. Kuzucu, 622 Stevenson Street, Sayre 18840

Gene M. Sweigart, 81 Lincoln Street, Waverly, New York 14892

BUCKS COUNTY:

Richard W. Godshall, Pennridge Medical Arts Building, Lawn Avenue, Sellersville 18960

Erk A. Ketels, 12 Robin Hill Lane, Levittown 19055

Richard R. Lamb, 1219 Yardley Road, Morrisville 19068.

Joseph D. Orlando, 435 Street Road, Trevose 19049

Harris Treiman, 20 Heights Lane, Feasterville 19048

CAMBRIA COUNTY:

Charles B. Cobern, Mercy Hospital, Johnstown 15905

CENTRE COUNTY:

Margaret G. Dowell, 307 South Corl Street, State College 16801.

COLUMBIA COUNTY

Cordt E. Rose, 150 Clifton Drive, Sherwood Village, Bloomsburg 17815.

CUMBERLAND COUNTY:

Herbert A. Muller, 313 South Hanover Street, Carlisle 17013.

Clifford T. Rotz, Jr., 224 Parker Street, Carlisle 17013.

DAUPHIN COUNTY:

Thomas J. Magnani, 309 Black Latch Lane, Camp Hill 17011.

Edward G. Verville, 1250 Geraldine Drive, Harrisburg 17112.

DELAWARE COUNTY:

Marvin D. Abrams, 215 Brookthorpe Circle, Broomall 19008.

Eugene A. Lesovsky, 334 Callender Lane, Wallingford 19086.

Seymour W. Milstein, 3200 Edgemont Avenue, Parkside, Chester 19015.

Constancio A. Ramirez, 310 Russell Street, Ridley Park 19078.

John Tekach, 1400 MacDade Boulevard, Apartment C-141, Woodlyn 19094.

Gary R. Vart, 1 Linden Drive, Broomall 19008.

Nicholas L. Zouras, 4320 E. Goshen Road, Newtown Square 19073.

ERIE COUNTY:

John G. Hrinda, 307 Cherry Street, Lake City 16423

FRANKLIN COUNTY:

Warren D. Kistler, Professional Arts Building, Chambersburg 17201.

HUNTINGDON COUNTY:

Thomas R. Mainzer, 725 Washington Street, Huntingdon 16652

INDIANA COUNTY:

Chester T. Kauffman, 1371 Washington Street, Indiana 15701.

LANCASTER COUNTY:

William G. Phippen, 1829 Edenwald Lane, Lancaster 17601.

Charles E. Pohl, 112 East James Street, Lancaster 17602.

LAWRENCE COUNTY:

Arthur J. Wendth, Jr., St. Francis Hospital, New Castle 16101.

LEBANON COUNTY:

Peter B. Flowers, 618 Cornwall Road, Lebanon 17042.

Frederic R. Keifer, 34 North Center Avenue, Cleona 17042.

Claude J. Miller, 618 Cornwall Road, Lebanon 17042.

LEHIGH COUNTY:

E. Joel Carpenter, IV, 102 North Thirteenth Street, Allentown 18102.

Francis V. Kostelnik, Sacred Heart Hospital, Allentown 18102.

Sheldon A. Michel, 110 Darwin Avenue, Rutherford, New Jersey 07070.

Jeffrey Myers, Allentown Hospital, Seventeenth and Chew Streets, Allentown 18102.

Alan H. Schragger, 1317 Hamilton Avenue, Allentown 18102.

Robert Wasko, 652 Benner Road, Allentown 18104.

LUZERNE COUNTY:

Richard L. Goyne, 383 Wyoming Avenue, Kingston 18704

MONROE COUNTY:

Margaret D. Evermon, R.F.D. 4, Stroudsburg 18360.

PCMS Gives 12 Rush Citations

Philadelphia County Medical Society on March 9 cited a dozen individuals and organizations for outstanding health activities.

Receiving the individual award was Mrs. E. Lawrence Miller, who had given more than fifteen thousand hours' volunteer service to patients at Philadelphia General Hospital.

Awarded the Benjamin Rush plaque for outstanding group effort in health was the Elizabeth Price Martin League Number 1—volunteers who work with needy patients at Philadelphia General.

Both recipients are to be nominated for State Society Rush Awards.

Honorable mention certificates were awarded to: Mrs. Richard Rollins; Horizon House; Samuel S. Feldgoise; Hospital Survey Committee; Philadelphia Association for Retarded Children; Miss Ann Sopp; United Order of True Sisters, Philadelphia Chapter 2; Mrs. Helen E. Heydrick; Mrs. H. A. Foster; and Teen-Aid, Inc.

RUSH AWARDS—Left to right, Edmund L. Housel, M.D., president of the Philadelphia County Medical Society, Mrs. E. Lawrence Miller, Miss Ann Sopp (in wheel chair), John F. Wilson, M.D., chairman of the awards committee, and Mrs. Mollie Arrington, president of the Martin League.

AMA Tackles Problems of Alcoholism

National leaders in the anti-alcoholism campaign met at AMA headquarters (Chicago) in January to help the AMA formulate plans for an attack on the "problem" drinking which affects the lives of millions of Americans. Raymond M. McKeown, M.D., Coos Bay, Oregon, pointed out that since 1854 the AMA has recognized alcohol's threat to health and to mental, familial, and social welfare. Dr. McKeown is chairman of the AMA Board's Committee on Scientific Activities.

Conference participants, representing many professions and other areas of activity, made observations which included the following:

- Alcoholism is not exclusively a medical problem, but involves virtually all facets of American society.
- Legal methods of dealing with alcoholics should be drastically revised; the victim of alcoholism is a sick person, not necessarily a criminal.
- Any program of prevention and treatment must depend on reliable statistics on the extent of the problem.
- Business and industry find alcoholism—with its attendant absenteeism, accidents, and production failures—a major problem.
- Medical schools could do more in teaching future M.D.'s how to diagnose and treat alcoholism.
- Cultural attitudes toward drinking—notably the high tolerance for drunken behavior—must be changed.

If You Prescribe Depressant or Stimulant Drugs

■ Any physician who writes prescriptions for depressant and stimulant drugs covered under the Drug Abuse Control Amendments of 1965 must follow these provisions, reported by the American Medical Association:

1. Prescription orders for stimulant and depressant drugs must bear the name and address of the patient, and the date of issue, and must be signed by the prescriber; the physician may give the prescription order by telephone, or by direct oral instructions followed up by a written, signed order.

2. No prescription order can be renewed more than five times, nor can it be dispensed or renewed more than six months after the date of issue. Although after five renewals, or six months, the physician may issue a new prescription, he cannot give authorization for refilling the old order. These requirements apply to all prescriptions as of February 1, 1966, regardless of the date of issue.

(See the February PENNSYLVANIA MEDICAL JOURNAL—page 69—for a full report on what you need to know about the new drug abuse regulations.)

Free for Members

Library Service Moved to Hershey Center

The Pennsylvania Medical Society's free library service for members is being continued through a cooperative arrangement with the new Hershey Medical Center library.

For thirty years, the Society maintained a library of reprints from some 150 scientific publications. But maintaining and improving the library proved to be too big a problem in the face of the information explosion in medicine.

On request of PMS members, the Hershey Medical Center library will make a search for specific factual articles relating to recent developments in medicine. Physicians will receive photocopies of the library material, which they may keep.

Fees for the library service will be paid by the State Society as a membership service.

How to Use. Address requests to the Pennsylvania Medical Society Library Service, Hershey Medical Center Library, Hershey, Pennsylvania 17033. Indicate if request is for specific articles, general information, or diagnosis or therapy of a specific disease.

Reprints? Just Ask

- Thousands of scientific articles in the now inactive State Society reprint library will be distributed free to physicians on a first come, first served basis.
- Some 78,000 articles on 1,700 different subjects are available, culled from medical literature in the past five years.
- Send your request to the Business Manager, Pennsylvania Medical Society, 230 State Street, Harrisburg 17105.

Recent Staff Changes

On April 1, three men left the staff of the State Society.

Richard Omohundro resigned as managing editor of Pennsylvania Medicine to accept a position with the Pennsylvania Bankers Association.

Roy Jansen, staff assistant in the Council on Public Service, retired after serving thirty-three years with the PMS.

Benjamin Bronstein, also a staff assistant with the Council on Public Service, resigned to accept a public information post at the new Milton S. Hershey Medical Center.

In Philadelphia, John H. Bausch, Jr., has been named assistant executive director of the County Medical Society.

• The State Board of Medical Education and Licensure has moved to 279 Boas Street, Harrisburg. The phone number, 787-2381, and the board's box number, 2649, remain unchanged.

Utilization Series Reprints Available

- Reprints of the recent series on hospital utilization are still available. Several hundred have been distributed to physicians requesting them, and a like number remain on hand.

For the reprints, write the Managing Editor, Pennsylvania Medicine, 230 State Street, Harrisburg 17105.

The five-part series (issues for October, 1965, through February, 1966), describes briefly some of the attempts of the Hospital Utilization Project in the Tenth Councilor District to reduce the cost of hospitalization for the average patient.

Based on interviews with Sidney Shindell, M.D., HUP medical director, the series shows how the utilization mechanism can effectively give better care to more people, in existing facilities, for less money.

The series would be of interest to any physician concerned with effective hospital utilization action.

Perinatal Session Set

Thomas F. Fletcher, M.D., Camp Hill, will direct the seventh annual Institute on Perinatal Mortality and Morbidity to be held April 14 at the Holiday West Motor Hotel, located at the intersection of U.S. Route 15 and the Pennsylvania Turnpike.

Sponsor of the one-day session is the State Society Commission on Maternal and Child Health.

Wives Foster Art Therapy

Sponsored by the Woman's Auxiliary to the PMS is a community art service project designed to provide the therapeutic benefits of art to patients in hospitals and other medical facilities.

At Citizens General Hospital, New Kensington, more than fifty oil paintings donated by local artists decorate rooms and corridors. The three judged best, which were awarded prizes, hang in the pediatrics ward.

Plans call for acquisition of a traveling cart which will carry paintings from room to room, with patients permitted to select favorites to be displayed in their rooms during the patients' terms of hospitalization.

Mrs. Mark Konrad, Aliquippa, has been appointed to encourage county auxiliaries to institute similar art projects in local hospitals.

GP Certification News

The wording of a preliminary application for a certifying board in general or family practice was approved by the board of directors of the American Academy of General Practice at a meeting in Philadelphia, following the Clinical Convention of the American Medical Association.

In a further action the board authorized the submission of this preliminary application to the Advisory Board of Medical Specialties for consideration. The board noted that the Section on General Practice of the American Medical Association previously had acted favorably on the preliminary application and authorized its submission.—*Keystone Physician*, February, 1966.

• Forty percent of the nation's physicians are responsible for writing 80 percent of the prescriptions.

The human spine is not engineered for prolonged sitting at desks, pianos, typewriters and drafting boards. The stresses set up by the heavy, forward-tilted head and trunk, balanced precariously on an insufficient base, result in strain of the dorsal musculature, particularly at the low lumbar level.

The unusual muscle-relaxant and analgesic properties of 'Soma' make it especially useful in the treatment of low back sprains and strains. 'Soma' is widely prescribed ☐ **to relieve pain** ☐ **to relax muscles** ☐ **to restore mobility.**

Indications: 'Soma' is useful for management of muscle spasm, pain, and stiffness in a variety of inflammatory, traumatic, and degenerative musculoskeletal conditions. It also may act to normalize motor activity in certain neurologic disturbances.

Contraindications: Allergic or idiosyncratic reactions to carisoprodol.

Precautions: 'Soma', like other central nervous system depressants, should be used with caution in patients with known propensity for taking excessive quantities of drugs and in patients with known sensitivity to compounds of similar chemical structure, e.g., meprobamate.

Side Effects: The only side effect reported with any frequency is sleepiness, usually on higher than recommended doses. An occasional patient may not tolerate carisoprodol because of an individual reaction, such as a sensation of weakness. Other rarely observed reactions have included dizziness, ataxia, tremor, agitation, irritability, headache, increase in eosinophil count, flushing of face, and gastrointestinal symptoms.

One instance each of pancytopenia and leukopenia, occurring when carisoprodol was administered with other drugs, has been reported, as has an instance of fixed drug eruption with carisoprodol and subsequent cross reaction to meprobamate. Rare allergic reactions, usually mild, have included one case each of anaphylactoid reaction with mild shock and angioneurotic edema with respiratory difficulty, both reversed with appropriate therapy. In cases of allergic or hypersensitivity reactions, carisoprodol should be discontinued and appropriate therapy initiated. Suicidal attempts may produce coma and/or mild shock and respiratory depression.

Dosage: Usual adult dose is one 350 mg. tablet three times daily and at bedtime.

Supplied: Two Strengths: 350 mg. white tablets and 250 mg. orange, two-piece capsules.

Before prescribing, consult package circular.

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Washington Report

Johnson Seeks Billion For Health Programs

President Lyndon B. Johnson is seeking congressional approval of a $1 billion expansion of federal domestic health programs.

In a message to Congress, Johnson estimated that after expansion, such programs would cost the federal government $4.67 billion in fiscal 1967.

The American Medical Association, in a report from Washington, noted that medicare expenditures of Social Security tax funds are estimated at more than $3 billion for the year.

Johnson announced plans for:

1. Reorganization of health functions of the Department of Health, Education, and Welfare.
2. Federal grants to "enable states and communities to plan the better use of manpower, facilities, and financial resources for comprehensive health services."
3. Programs to strengthen the nation's system of health care.
4. A three-year program of federal aid in training of more health workers.
5. An increase in medical research.
6. Additional steps to meet specific health problems such as those of alcoholism, birth control, mental retardation, and nutrition.

Johnson also said that in fiscal 1968 he wants to start "new state formula grants for comprehensive health services" and additional grants to states, communities, and hospitals to meet special health problems.

"To strengthen the nation's system of health care," the President proposed federal aid in modernizing obsolete hospitals, aid to group practice clinics, and research and demonstration projects "in the organization, financing, utilization, and delivery of health services."

Other News

The AMA announced its support of a legislative proposal for the federal licensing of dealers in research cats and dogs to protect such pets from theft and to insure their humane care.

PENNSYLVANIA
MEDICAL SOCIETY
Teaching
Session– 66
OCTOBER 9-13, 1966 • PITTSBURGH, PA.

The AMA opposes licensing of research laboratories themselves and sees no need to include other research animals in such a federal program.

Strict guidelines prohibiting racial segregation in hospitals receiving money from the federal government were issued by HEW. Hospitals must not segregate patients, or discriminate against them on the basis of race or national origin.

The hospitals will have to state whether or not they accept and approve applications for staff privileges and training without regard to race, color, or national origin, and will have to give a breakdown, by race, of physicians holding staff privileges.

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Population Expansion One of Six Session Topics at AMA Meet

The much discussed population expansion will be one of six topics presented in general scientific sessions at this year's annual convention of the American Medical Association, to be held in Chicago, June 26-30.

General sessions also are planned on emphysema, burns, mysterious fevers, community hospital coronary care units, and headache.

Each of the twenty-three scientific sections will present programs. Included will be sessions on clinical psychopharmacology and recent developments in psychotherapy.

A panel on clinical psychopharmacology will feature presentations by three authorities on the present status of the phenothiazines, the antidepressants, and the minor tranquillizers.

Recent developments in psychotherapy will feature three presentations of differing conceptual models of psychotherapy: existentialist approaches to psychotherapy, Hellmuth Kaiser's contribution to the subject, and the learning theory.

Disaster Session Set

Physicians in northwestern Pennsylvania have been invited to attend a regional seminar on disaster medical care May 11 in Erie.

The morning program, at Hamot Hospital, will focus on packaged disaster hospitals, medical-self-help training, community disaster planning, and surgery of trauma.

Co-sponsors are the PMS Commission on Disaster Medical Care and the Erie County Medical Society.

The seminar will be the fourth in a series of regional meetings.

Keystone News Published

The State Society Woman's Auxiliary has produced and mailed the first issue of its new official publication, the *Keystone News.*

On the cover of the spring number, a map of Auxiliary councilor districts is featured.

Inside contents include the program of the midyear conference in Harrisburg April 20-22, a "president's message," a list of officers and councilors, and other news items.

WAINWRIGHT TUMOR CLINIC ASSOCIATION OF PENNSYLVANIA

invites all physicians to attend its

ANNUAL MEETING

WEDNESDAY, MAY 11, 1966
EASTON HOSPITAL
Easton, Pennsylvania

8:30 A.M. Registration

9:00 A.M. Welcome and Remarks
Donald Hamilton, *Administrator,* Easton Hospital
Paul W. Schuessler, M.D., *President of Staff,* Easton Hospital

9:15 A.M. William Johnson, M.D., *Radiologist,* Easton Hospital: "End Results of Treatment of Cancer of the Cervix at the Easton Hospital"

9:45 A.M. John V. Blady, M.D., *Clinical Professor of Surgery, Director of Head and Neck Department and Director of Tumor Clinic,* Temple University Hospital and Medical Center, Philadelphia: "Rehabilitation of the Patient After Radical Treatment for Carcinoma of the Oral Cavity, Pharynx and Larynx"

10:45 A.M. Gray H. Twombly, M.D., *Professor of Obstetrics and Gynecology,* New York University School of Medicine, New York City: "Surgical, Radiological and Hormone Treatment of Cancer of the Endometrium"

11:45 A.M. Lunch—Easton Hospital

1:00 P.M. Gordon McNeer, M.D., *Attending Surgeon and Chief,* Gastric and Mixed Tumor Services, Memorial Hospital, New York City: "The Clinical Management of Melanomas in Different Anatomical Locations"

2:00 P.M. Alexander J. Conte, M.D., *Director,* Tumor Clinic, St. Vincent's Hospital, New York City: "Radiography, Thermography and Xerography of Breast Tumors"

3:00 P.M. Alfred S. Ketcham, M.D., *Chief,* Surgery Branch, National Cancer Institute, National Institutes of Health, Bethesda, Maryland: "Radical Surgery in the Treatment of Pelvic Cancer"

4:00 P.M. Robert Hoye, M.D., *Senior Surgeon,* Surgery Branch, National Cancer Institute, National Institutes of Health, Bethesda, Maryland: "The Laser as an Oncolytic Tool"

5:00 P.M. Business Meeting followed by adjournment
Charles A. Waltman, M.D., *Easton President*

No Registration Fee

- For information and reservations, contact Hugh R. Gilmore, Jr., M.D., Box 90, Harrisburg, Pa. 17108

PENNSYLVANIA DIVISION PHILADELPHIA DIVISION
AMERICAN CANCER SOCIETY

CLASSIFIED ADVERTISEMENTS

ASSOCIATES WANTED

Staff Additions—Four staff additions to southern California group of twenty-four physicians: internist with chest subspecialty, ophthalmologist, otolaryngologist, general practitioner. Partnership possibility after first year. Write Administrator, Gallatin Medical Group, 10720 South Paramount Boulevard, Downey, California 90241.

Physician for General Practice—Full associate; immediate occupancy of office. No initial investment. Rental house available. Central Pennsylvania location; excellent hunting, fishing, boating. Department 427, Pennsylvania Medicine.

Associate Wanted—General practitioner, young, to join two general practitioners in Central Pennsylvania. Modern office, good hospital facilities. Start at $12,000. No expenses. Ample time off, two weeks' vacation. Partnership available. Write Department 450, Pennsylvania Medicine.

Wanted—Full- or part-time associate for radiological practice. Suburban Pittsburgh, east. Financial arrangement open, depending on experience and available time. Write Department 453, Pennsylvania Medicine.

FOR RENT

Suites—In new, fully air-conditioned professional building in a rapidly growing Pittsburgh suburb. The area definitely needs general practitioners, pediatricians, internists, and dentists. Contact Norwin Medical Arts Building, 101 Clay Pike, Irwin, Pa. 15642.

FOR SALE

For Sale—Physician's office, Reading, Pennsylvania. Suburban location, modern design, beautifully landscaped; covered, paved carport, capacity four cars. Office designed for two-man practice. Completely air-conditioned; equipped with executone. Fully furnished, including well-equipped laboratory. Near three general hospitals. Write Department 447, Pennsylvania Medicine.

INTERNS, RESIDENTS WANTED

Psychiatric Residencies—Norristown State Hospital; first, second, and third years. Fully approved. Twenty miles from Philadelphia, in semi-rural area near five large medical centers. Salaries start above $7,000, plus partial maintenance and many fringe benefits. For brochure and details, write Superintendent, Norristown State Hospital, Norristown, Pa. 19401.

Three-Year Psychiatric Residency Training—Approved; third year in university-connected psychiatric institute. ECFMG and/or license acceptable in Pennsylvania required. Salary $7,055-$10,432; maintenance arrangements possible. R. L. Gatski, M.D., Superintendent, State Hospital, Danville, Pa. 17821.

PHYSICIANS WANTED

Wanted—House physician for 206-bed general hospital located in a pleasant college community 55 miles from Pittsburgh. Rotate services with another house physician. Pennsylvania license required. An excellent introduction to a community with practice opportunities. Contact William Peters, Administrator, Indiana Hospital, Indiana, Pa. 15701.

Excellent Opportunity—General practitioner needed in Catawissa. Office and records of previous physician (deceased) available. Office offered at reasonable rental. Drugstore in town. Hospital within four miles. Presence of two other physicians in town allows for mutual coverage arrangements. The Keystone Shortway, when completed, will put Catawissa within three hours of New York. Contact Herbert Maurer, Chamber of Commerce, Catawissa, or Physician Placement Service, Pennsylvania Medical Society, 230 State Street, Harrisburg, Pa. 17105.

Immediate Opening—In medical department of Reading Railroad, at Reading, Pa., for full-time physician. General work, involving all facets of medicine. Contact Morton M. Medvene, M.D., Room 350, Reading Terminal, Philadelphia, Pa. 19107.

Wanted—A psychiatrist and a general physician; beginning salary, $12,510–$20,005, depending on qualifications. Benefits: annual and sick leave, life and hospitalization insurance programs, retirement plan. License (any state) and U.S. citizenship required. Nondiscrimination in employment. Moving expenses will be paid. Apply to Chief of Staff, Veterans Administration Hospital, Leech Farm Road, Pittsburgh, Pa. 15206.

Wanted—General practitioner or internist for progressive industrial community of 7,000 with an additional 20,000 within 10-mile radius. Open-staff modern hospitals fifteen minutes away. Modern schools; three drugstores; 40-minute drive to Pittsburgh. Community is on the Beaver Valley Expressway. Greater Pittsburgh airport is only a 35-minute drive away, via new bridges on the Ohio River. Presence of three other physicians in town permits mutual coverage arrangements. Contact Midland Borough Council, Midland, Pa. 15059.

Physicians—Male and female, licensed, for children's camps, July-August. Good salary; free placement. Three hundred fifty member camps. Write Department P, Association Private Camps, 55 West 42nd Street, New York, N. Y. 10036. Phone (212) OX 5-2656.

House Physician—123-bed general hospital. Pennsylvania license necessary. Salary open. Excellent introduction to community with practice opportunities. Contact Madeline Gregory, Administrator, Miners Hospital of Northern Cambria, Spangler, Pa. 15775.

Wanted—General practitioner or internist for 20-bed hospital in pleasant, progressive community. Excellent recreational facilities, good schools. Will guarantee $25,000; $50,000 gross possible. Contact Board Secretary, Colver Hospital, Colver, Pa.

Psychiatrist or Physician—Accredited hospital affiliated with approved general hospital. Approved psychiatric residency program. Pennsylvania license required. Salary $10,954-$19,664; maintenance arrangements possible. R. L. Gatski, M.D., Superintendent, State Hospital, Danville, Pa. 17821.

Wanted—General practitioner to establish private practice in a community located within five miles of a 207-bed general community hospital. Contact ADMINISTRATOR, Lewistown Hospital, Lewistown, Pa. 17044.

Needed Immediately—Two general practitioners to serve the Grove City area. Contact ADMINISTRATOR, Grove City Hospital, Grove City, Pa. 16127.

Anesthesiologist—Associate to board man in medium-sized Philadelphia hospital. Opportunity for training and supervisory experience over full staff of well-qualified anesthetists. New equipment in modern, air-conditioned facility. Good income with minimum call from home. Apply to J-98, P.O. Box 2068, Philadelphia, Pa. 19103.

Golden Opportunity — For M.D. who needs slower pace. Five-day week. Work largely administrative and supervisory (medical publishing firm). Graduate of class A school, good command of English; foreign language desirable. Partial disability not disqualifying. Send résumé to Department 452, PENNSYLVANIA MEDICINE.

Internist—Age forty-two, board certified, with university hospital experience in cardiology and medical rehabilitation plus some hospital administration, desires institutional affiliation in Eastern Pennsylvania. Write Department 455, PENNSYLVANIA MEDICINE.

POSITIONS WANTED

Obstetrician-Gynecologist — Age thirty-three, Catholic, married, board certified, desires association leading to partnership in eastern Pennsylvania. Military obligations fulfilled. Available after July 1, 1966. Write Department 413, PENNSYLVANIA MEDICINE.

PRACTICES AVAILABLE

Available—General practice with equipment and combined home-office. Liberal terms. Resort and agricultural area in county seat town of northeastern Pennsylvania. Physician retiring. Open staff hospital. Will introduce. Write Department 441, PENNSYLVANIA MEDICINE.

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Write Now

- *Nine Months to Get Ready*—Prenatal care booklet, and related film; the former available for 25 cents from the Public Affairs Committee, 381 Park Avenue South, New York, N.Y. 10016. Film information also available there.
- Bibliography, *Recommended Books for a Mental Health Library,* may be had for 25 cents from the National Association for Mental Health, 10 Columbus Circle, New York, N.Y. 10019.
- Send 35 cents for the newest edition of *Immunization Information for International Travel,* to Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. A discount of 25 percent is allowed for orders of one hundred or more, sent to one address.
- *NCG Medical Gases* available gratis from the National Cylinder Gas Division of Chemetron Corporation, 840 North Michigan Avenue, Chicago, Illinois 60611.
- A manual on drug abuse, and a speech script, *The Hidden Sickness,* may be obtained from the Law Enforcement Liaison Unit, Smith Kline & French Laboratories, Philadelphia 19101.
- FILMS: *Radioisotope Scanning in the Clinical Management of Patients,* sound film, 16 mm., in color—runs 35 minutes; available gratis from any E. R. Squibb regional office, or from New York office, 745 Fifth Avenue (10022). . . . *An Ounce of Prevention* (on hospital medication procedures), sound film, 16 mm., from The William S. Merrell Company, Attention Film Library, Cincinnati, Ohio 45215. . . . *Smoke, Anyone?* (geared to teenagers), from Center for Mass Communication, 1125 Amsterdam Avenue, New York.

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• Every precaution has been taken to insure accuracy in these advertisements and in this index, but there is no guarantee against errors or omissions.

In My Opinion . . .

Communication Skills

James E. Bryan declares, in the January-February issue of the *Bulletin* of the American Medical Writers Association, ". . . it seems safe to say that no other challenge facing medicine today is more complex or [more] urgent than the communications problem."

Mr. Bryan, executive secretary and managing editor of the AMWA, stressed the need for medical students to develop these communications skills.

Why should one express concern regarding this type of training for graduate students? Is Dr. Henry A. Davidson correct in saying that medical schools' admission policies fail to reflect concern for liberal arts and humanities courses?

Comprehension of, and appreciation for, the art of medicine—upon which an understanding of the humanities has a vital bearing—is the basis for coping intelligently with many clinical situations. How many of us now practicing, for instance, would turn down a course in comparative religions? I know that the physician recognizes, in the day-by-day experiences of his profession, the value of this kind of educational background. Medical educators' shallow shortsightedness in this regard should give way to enlightened inclusion of such a course in their curricula, enriching the future M.D.'s ability to communicate.

To paraphrase William Osler's famous quotation, "lacking knowledge of the science of medicine is like going to sea without a compass—the failure to comprehend the art of medicine is like never having gone to sea at all."

David A. Smith, M.D.,
Contributing Editor.

■ Dr. Davidson, to whom Dr. Smith refers, is editor of the *Journal of the Medical Society of New Jersey.*

P.R.N.

He joined the Pennsylvania Medical Society for a "three-month assignment" (because of the "threat of socialized medicine") and stayed for thirty-three years!

This is fact about Roy Jansen's tenure with the State Society. But what of the man, now retired?

A Harrisburg newspaper columnist described Roy's "warm friendliness," and that about sums it up. This friendliness even has included rallying a corps of helpers to rescue a brood of mallard ducklings stranded atop a tall Harrisburg building.

He also is a man who would spend hours in his lifetime collecting travel and health posters from throughout the world and displaying them.

Roy, in his 77 years, has seen much and has known many people.

As a writer, he has interviewed and corresponded with the great—and the near-great—and yet enjoys telling about strolling near midcity Philadelphia holding an empty dog collar on a leash. His beloved dog had quietly taken his leave.

Born in San Francisco, Roy worked in a mercantile library, on construction of the Panama Canal, for a book publisher, in a foundry, as a sailor, and even as a mounted postman in Mexico.

Roy enjoyed his many years as a newspaper man (he used the rickety desk of Mark Twain on one job), and is always ready to swap stories with fellow craftsmen of the Fourth Estate.

Roy's joy in writing carried over into his medical society career. Since 1933, he has produced, without missing a day, the popular "Your Health" column (some 10,500 columns in all).

He launched and conducted many other important projects for the State Society, including the 50-Year and Centenarian awards programs.

During World War II, after Roy and his actress wife, Lois, were transferred by the Society to Harrisburg, he served as managing editor of this medical journal.

Roy since then has been a welcome contributor to this magazine, his name or familiar "RJ" initials having appeared after many articles on medical heritage and physicians' hobbies.

It has been said of Roy that there is no adequate description of what his service has meant to the State Society and its members.

Roy, in retirement, will be remembered for many things by the many people who knew him—staff members and physicians alike.

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Contraindications: Infants, patients with history of convulsive disorders or glaucoma.

Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.

Precautions: Limit dosage to smallest effective amount in elderly patients (not more than 1 mg, one or two times daily) to preclude ataxia or oversedation. Advise patients against possibly hazardous procedures until correct maintenance dosage is established; driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. Warn patients of possible combined effects with alcohol. Safe use in pregnancy not established. Observe usual precautions in impaired renal or hepatic function and in patients who may be suicidal; periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances and hallucinations) and changes in EEG patterns. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.

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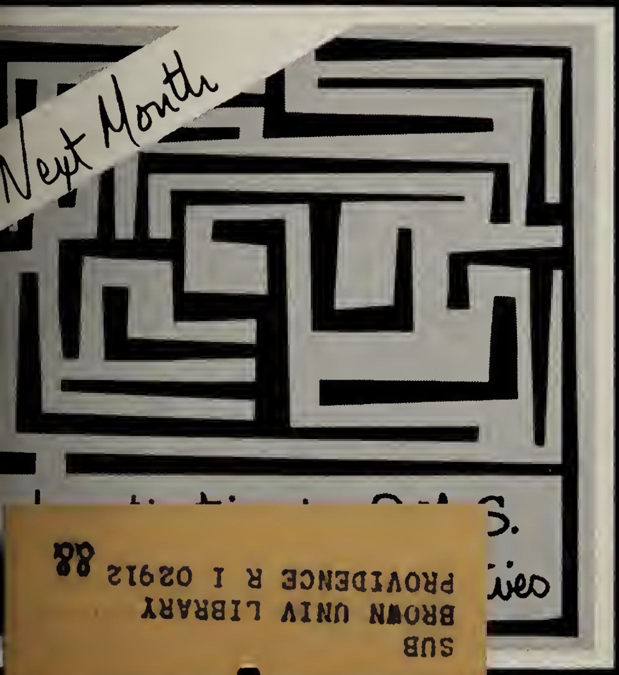

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MALPRACTICE INSURANCE

Noted law firm says this protection a "must"; coverage explained..................Page 78

INDICATIONS: Grand mal epilepsy and certain other convulsive states.
PRECAUTIONS: Periodic examination of the blood is advisable. Nystagmus in combination with diplopia and ataxia indicates dosage should be reduced.
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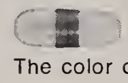

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LATE News HIGHLIGHTS

May, 1966

GRAVE THREAT IN EASILY-AVAILABLE LSD

■ Physicians, parents, and educational administrators are being alerted to the growing use of hallucigens among young people. Termed "the most readily obtained, most dangerous drug in use today," LSD-25 (d-lysergic acid diethylamide tartrate), used experimentally by boys and girls, has resulted in acts of violence—including forcible rape and murder—and in some instances has caused insanity. Physicians are urged to caution patients against sampling such drugs, and to report to FDA district offices all instances of patients' unsupervised use of them.

DR. SHINDELL RESIGNS – NEW HUP DIRECTOR IS SOUGHT

■ **Sidney Shindell, M.D.**, who headed the Tenth Councilor District's Hospital Utilization Project, has resigned to become chairman of a university department of preventive medicine. A new director is being sought who understands the problems and point of view of practicing physicians, who has some knowledge and experience in interpreting statistics, and who can manage a staff of eight or nine employees. Applicants should send curricula vitae to the Search Committee, Hospital Utilization Project, Flannery Building, Pittsburgh 15213, to the attention of **William A. Barrett, M.D.**

NEWS FROM WASHINGTON

■ Until May 31, persons sixty-five and older can sign up for Plan B under medicare. As of March 31, 5 percent of the over-sixty-five population had rejected the plan, 88 percent had signed up, and the remainder were uncommitted . . . President Johnson has ordered that steps be taken to provide rehabilitation aid to more of the disabled persons on public welfare . . . Tighter controls will be applied to the problem of pesticide residues in food . . . The administration wants to prohibit manufacturers from mailing any but specifically requested drug samples to physicians.

THIS MONTH

■ May 8-14—National Hospital Week. Its theme, "Alliance for Health," emphasizes the impending advent of medicare in the nation's hospitals.

NEXT MONTH

METHYLDOPA

Three Abington Memorial Hospital physicians evaluate the drug on the basis of its use with a selected group of hypertensive patients.

ANEMIC RETINOPATHY

A case report points out that the cause of this condition may not be the obvious one.

Golden Nuggets

Ethan L. Trexler, M.D., of Fleetwood, general practitioner and former president of the PAGP, said:

"Congratulations are in order for the extremely good program at our last convention. This was one of the most worthwhile medical education programs I have ever attended. A great deal of practical value was obtained."

■ Just one of many comments by physicians about Teaching Session '65 which encouraged the PMS Committee on Convention Program to plan similar sessions for the 1966 Teaching Institute October 9-11 in Pittsburgh.

Officers' Conference Highlights

Notable among events of the 1966 Officers' Conference in Harrisburg April 28-29 was the presentation of the 1966 State Benjamin Rush Awards, including an unusual "Special Award."

- Receiving the individual award was **Mrs. Raymond Michener**, Buck Hill Falls, who over the past eleven years has made and repaired jewelry for a total revenue of $15,000. Mrs. Michener has turned these earnings over to the Monroe County General Hospital for specified use in treating cancer patients.

- For providing 2,000 hours of voluntary work in 1965 in behalf of indigent patients at Philadelphia General Hospital, the **Elizabeth Price Martin League No. 1** of Philadelphia received the Group Award.

- **Senator Albert R. Pechan** of the Forty-first District (Senate majority whip) received a Special Award presented by PMS President William B. West, in recognition of his outstanding legislative activities related to health concerns.

The other presentations were made by **John F. Hartman, M.D.**, Erie, chairman of the PMS Council on Public Service.

County Unit Looks Ahead

Twenty-one former presidents of the Northampton County Medical Society comprise a planning committee to plot the future of the organization.

The committee is the first of its kind on the county level in Pennsylvania.

A State Society Committee on Objectives is doing the same job on a statewide basis.

- Because seizure-controlled epilepsy victims have a better-than-average work safety record, The Epilepsy Foundation campaigns for greater employment opportunities for these individuals.

- The first successful removal of an appendix was done by Thomas G. Morton, M.D., of Philadelphia, April 27, 1887.

Physicians; Services Set For Medicare

The Social Security Administration, in cooperation with the Public Health Service, has drafted tentative definitions of physicians and their services in preparation for the advent of medicare.

Here are the draft definitions, as reported by the American Medical Association:

Physician—A doctor of medicine legally authorized to practice medicine and surgery by a state in which he performs such function or action. (Doctors of osteopathy, dental surgery, and medical dentistry are included within the scope of the definition under certain circumstances.)

Physicians' Services—The professional services for a patient performed by physicians, such as diagnosis, therapy, surgery, consultation, and includes home, office, and institutional calls. Services by means of a telephone call between physician and patient are not included.

Consultation—This means a professional service furnished a patient by a second physician (consultant) at the request of the attending physician. "Consultation" includes (1) the history and examination of the patient, and (2) the written report.

- In Philadelphia, in 1793, during the yellow fever epidemic, tobacco smoke was regarded as a possible preventive against the disease, and even women and children almost constantly had cigars in their mouths.

THE JEFFERSON MEDICAL COLLEGE

OF PHILADELPHIA

FOUNDED 1825: A chartered university since 1838. Coeducational. 1961. Graduates 20,524.

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ADMISSION: For full particulars regarding admission requirements write to the Office of the Dean, 1025 Walnut St., Philadelphia, Pa. 19107.

William A. Sodeman, M.D., *Dean and Vice President for Medical Affairs*

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Literature on indications and dosage available on request.

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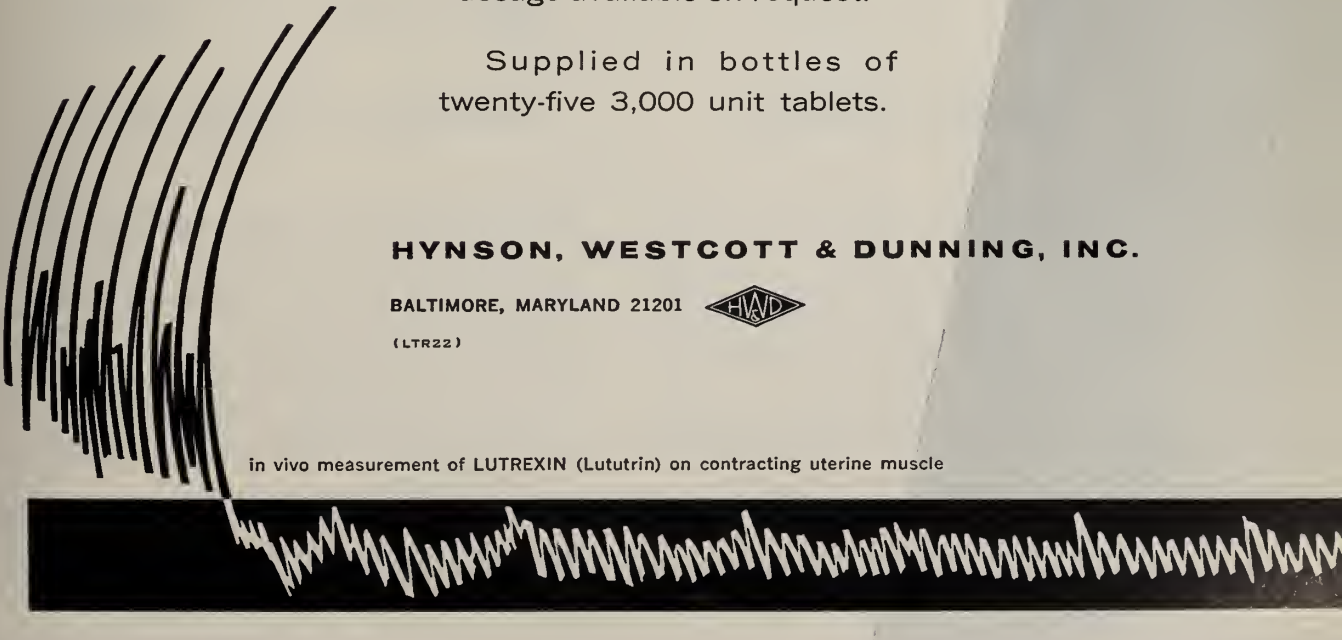

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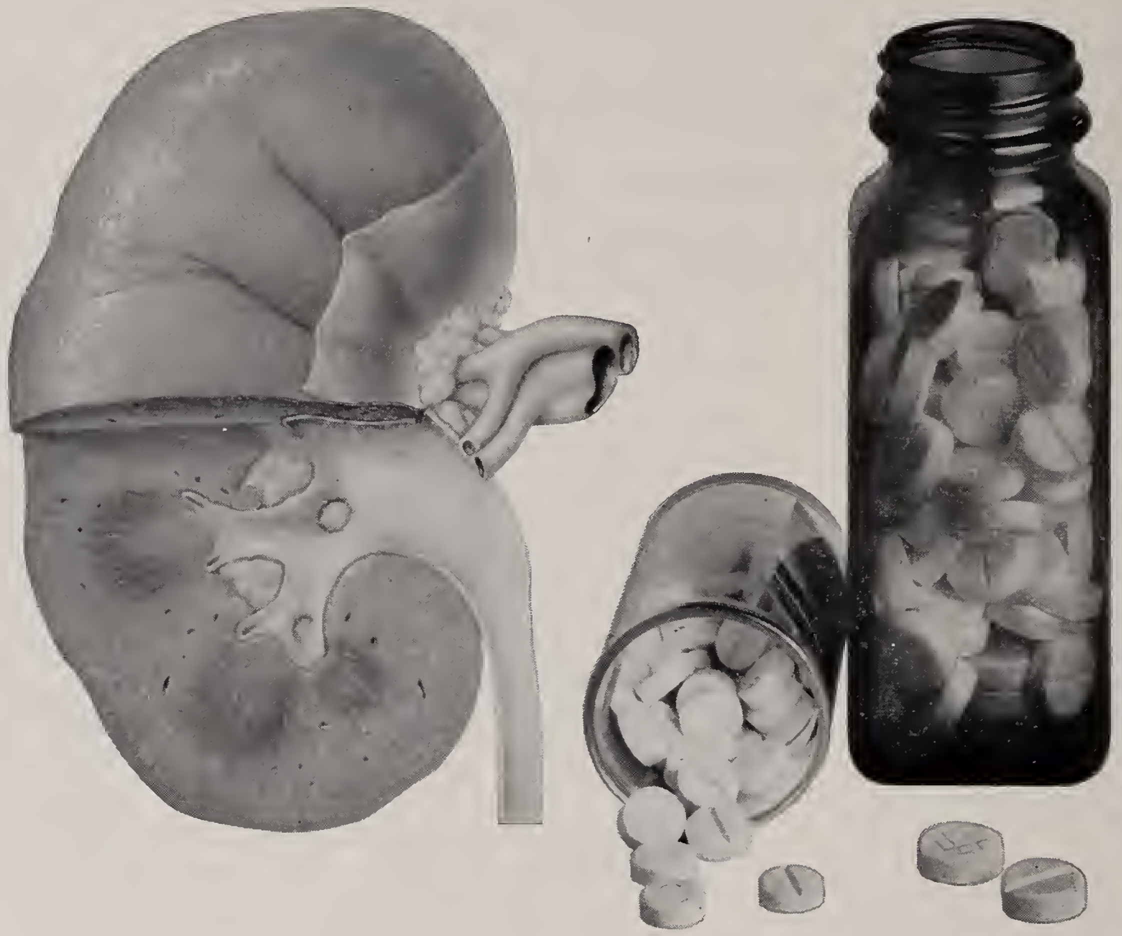

understanding... precedes development

The development of chlorothiazide and probenecid were events of major importance, but perhaps even more important for the future was the Renal Research Program by which they were developed. When Merck Sharp & Dohme organized this program in 1943, it was expressing in action some of its basic beliefs about research:

- Many problems connected with renal structure and function were still undefined or unsolved. The Renal Research Program would begin its basic research in some of these problem areas.
- From knowledge thus acquired might come clues to the development of new therapeutic agents of significant value to the physician.

For example, the Renal Research Program put fifteen years into this search before chlorothiazide became available. But because these years had first led to a greater understanding of basic problems, the desired criteria for chlorothiazide existed before the drug was developed.

Along with other research teams at Merck Sharp & Dohme, the Renal Research Program continues to add new understanding of basic problems—understanding which will lead to important new therapeutic agents.

MSD MERCK SHARP & DOHME Division of Merck & Co., Inc., West Point, Pa.

where today's theory is tomorrow's therapy

PENNSYLVANIA MEDICINE

OFFICIAL PUBLICATION OF THE PENNSYLVANIA MEDICAL SOCIETY

FORMERLY THE PENNSYLVANIA MEDICAL JOURNAL

MAY, 1966 VOLUME 69 NUMBER 5

ORIGINAL PAPERS

RENOVASCULAR HYPERTENSION *Drs. Robert Bower, Albert N. Brest and Charles C. Wolferth, Jr.*

Doctors follow up cases of 27 patients treated surgically and find 80 percent had significant blood pressure reduction. Page 27.

SENSITIVITY TO DIGITALIS *Dr. Robert L. Hall*

Noted internist finds sometimes fatal toxic reaction can follow use of this drug; cites case reports. Page 37.

PEPTIC ULCERS AND HYPERTHYROIDISM *Drs. Charles R. Leone and Ghislain J. Devroede*

Surgeons explore question: Should all peptic ulcer patients be screened for hyperthyroidism? Page 41.

A NEW CREAM FOR TREATING VAGINITIS *Drs. Fred B. Nugent and John E. Myers*

Evaluation of cream shows more than 75 percent of patients obtain satisfactory relief. Page 44.

NARCOTICS USE AND ABUSE *Dr. Emil S. Trellis*

Grave threat of addiction cited in misuse of some pain relieving drugs; suggestions given. Page 50.

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Next Month
Investigation by P.M.S. Committee on Objectives

■ The maze on the cover invites your attention to the difficulties of the important task of the Society's Committee on Objectives. Next month we will feature a report of their "gloves-off" session with three physicians who were invited to speak their minds about ways in which organized medicine can be improved.

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Dosage: *Children under 25 pounds*—5 mg. per pound of body weight every six hours. *Children 25 to 50 pounds*—125 mg. every six hours. *Adults and children over 50 pounds*—250 mg. every six hours. For severe infections, these dosages may be doubled.

Available in Pulvules®, suspension, drops, and chewable tablets. Ilosone Chewable tablets should be chewed or crushed and swallowed with water.

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Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana. 501280

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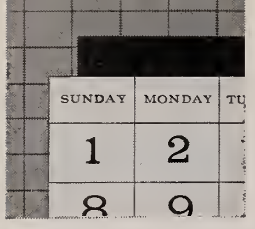


THIS MONTH

Citizens Organize Mental Health Unit

More than 40 outstanding Pennsylvania business, labor, and community leaders comprise a new committee dedicated to informing the public of the need for community-based services for the mentally ill and mentally retarded.

Citizens for the Advancement of Community Mental Health-Retardation Services is the result of two years of study and planning. According to Richard T. Tyner, Harrisburg, chairman, treatment would be provided not in isolated facilities, as is now too often the case, "but in the patients' own communities, near families and jobs, where they can continue to remain productive citizens."

Among professional people on the committee is William B. West, M.D., president of the State Society. Mrs. Lucian J. Fronduti, president of the Woman's Auxiliary to the PMS, is also a member.

Veterinary Medicine Man For Hershey Selected

A fifty-acre animal farm to be built as part of the new Pennsylvania State University College of Medicine at Hershey will be planned and constructed under the direction of a specialist in the field of veterinary medicine, C. Max Lang, V.M.D.

Dr. Lang, 29, now at Bowman Gray School of Medicine, Wake Forest College, will join the staff of the Hershey school June 1 with the title of assistant professor.

Development of the animal farm is one of the early projects at the Milton S. Hershey Medical Center.

In announcing Dr. Lang's appointment, George T. Harrell, Jr., M.D., dean and director, said,

"We plan to construct facilities for breeding and long-term holding of a wide variety of species of small animals.

"The facilities will include operating rooms and laboratories in addition to those in the medical sciences building for short-term or acute experiments."

All facilities of the unique animal farm will be within five minutes' walk of the main medical complex.

"We are finding," Dr. Harrell said, "there are some surprising parallels between behavior in animals and those in human beings. Our proposed set-up here will help us learn more about this vital phase of medicine."

Drug Control Seminar Set

Prime drug control information available to universities, government agencies, and industry will highlight the programs of the seminar on Control Procedures in Drug Production July 17-22 at Hershey.

Current good manufacturing practices will be stressed in the conference, which is sponsored by the University of Wisconsin's School of Pharmacy, cooperating with the Pharmaceutical Manufacturers Association and the F.D.A.

For application forms, write Dr. William L. Blockstein, 190 Pharmacy Building, Madison, Wisconsin 43706.

Developer at Woman's

Newly appointed as director of development at Woman's Medical College of Pennsylvania is Mr. George V. King, formerly of Vineland, New Jersey.

Bio-Medical Unit Added

Philadelphia's Moss Rehabilitation Hospital has established a bio-medical engineering services section to bring engineers into the rehabilitation team to work with physicians in helping patients who have suffered strokes, heart attacks, or crippling accidents.

Behavioral Sciences Area Set at Temple

Heading a new department of behavioral science at the Temple University School of Medicine is R. W. Payne, Ph.D., former professor of psychology at Queen's University, Kingston, Ontario.

DR. PAYNE

In announcing establishment of the department, and appointment of Dr. Payne, Robert M. Bucher, M.D., dean of the School of Medicine, declared that "The relationship of social, economic, geographic, and other factors upon the health of the individual is a field which must be explored if our students are to leave here with a complete education. At the same time, the establishment of this department will meet a pressing community need, and provide professional assistance to patients in this geographic area."

Among aims of the new department is a fourth-year residence program for psychiatrists which would give them an opportunity to conduct research in various psychology fields related to medical science, and to obtain a master's degree.

Joseph Wolpe, M.D., formerly of the University of Virginia School of Medicine, has been named a professor of psychiatry, one of twelve recent faculty appointees for the department.

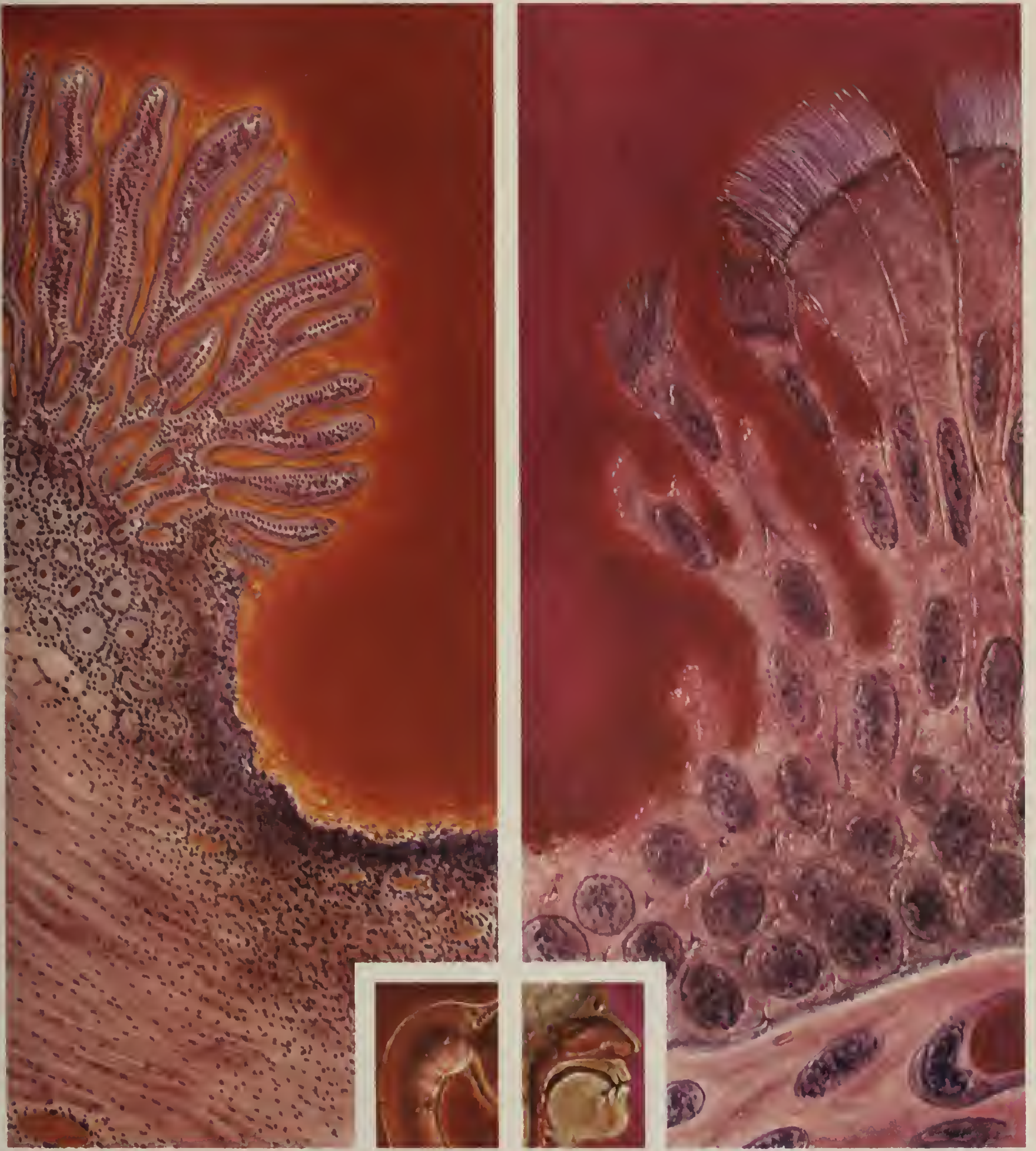
Draft for 114 M.D.'s

Between July and September, Pennsylvania is due to supply 114 physicians for a national draft call, according to a Selective Service directive reported in a newspaper account.

spring 1966

DORSEY Season

A journal within a journal published quarterly in the interests of better medicine by Dorsey Laboratories, a division of The Wander Company, Lincoln, Nebraska. Address communications to Raymond C. Pogge, M.D., Director of Medicine.



Duodenal mucosa with ulcer crater—Approx. 80× Magnification.

Loosening epithelial cells of nasal mucosa during early stage of cold—Approx. 1800× Magnification.

this issue: partners in misery

partners in misery:
common cold and duodenal ulcer*

a century or two ago our forefathers believed that the common cold was caused by an excess of evil humors. Today we regard these baleful humors as a result of the cold rather than its cause. Only in the last ten years have some of the offending viruses been cultivated, and we now know many others can be transmitted to human volunteers although they cannot yet be grown in the laboratory. Various body defenses react to infection by a virus, and in the respiratory tract the lung is protected by the phagocytic properties of the pulmonary alveolar macrophage.[1]

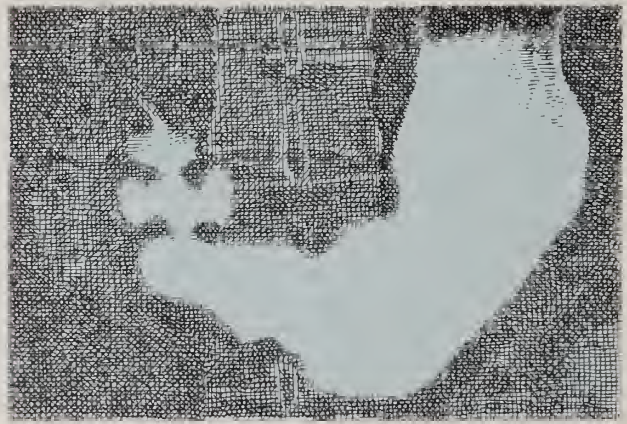
Because of the brief history and large proportion of unidentified viruses, effective prophylactic vaccines have not yet appeared. A universal antiviral agent seems even more remote. Meanwhile, these viruses continue to produce epidemics of upper respiratory infection at seasonal intervals, particularly in spring, fall and winter, during which they propagate and distribute progeny indiscriminately. As a result, they are responsible for significant work loss. Since the immunity afforded is temporary, recurrent infections are common.

This recurrent morbidity in spring and fall is shared by duodenal ulcer, itself a cause of significant loss in wages and medical expense. Thirty years ago Emery and Monroe reported 1,279 recurrences of peptic ulcer of which 13 per cent could be attributed to upper respiratory infection, thus confirming a long-held clinical impression.[2] While the inflammation, congestion and secretion of the mucosa of the nasopharynx in the common cold, and the hyperemia and hypersecretion of the gastric mucosa during acute exacerbation of a duodenal ulcer may not be directly linked, it is probable that the miseries of the infection are reflected in the pain of the ulcer. The following case history illustrates this point.

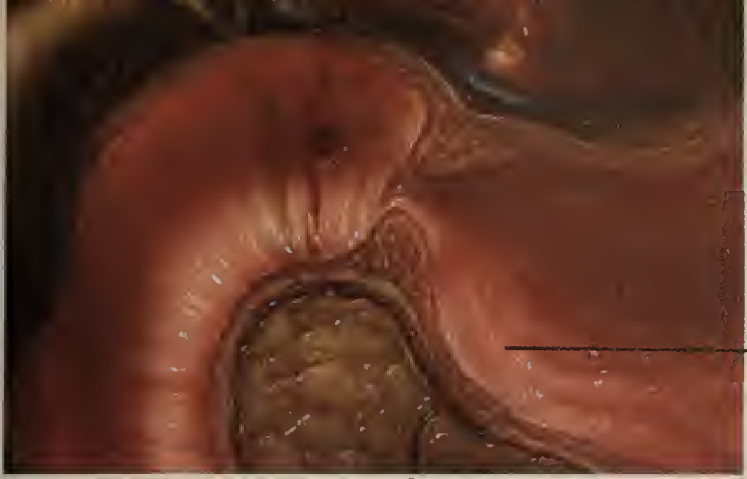
Case report A 48 year old white male executive, suffering from hematemesis and melena for 12 hours was admitted to hospital on April 8, 1965. He gave a history of duodenal ulcer proved by x-ray studies 23 years previously. In the intervening years he suffered from typical epigastric pain occurring two hours postprandially, usually for two or three weeks each spring and fall. A hospital admission two years earlier had followed hematemesis of moderate amount.

The present admission was preceded by a recurrence of pain during a period of unusual business pressure. In addition he caught a cold one week before his entry to hospital and his already irregular eating habits were made more so by loss of taste and appetite, blocked nose and general malaise. During the final 36 hours he used aspirin to relieve his cold, taking 2 or 3 tablets with a glass of water on 6 or 7 occasions. Before retiring he drank a glass of hot toddy.

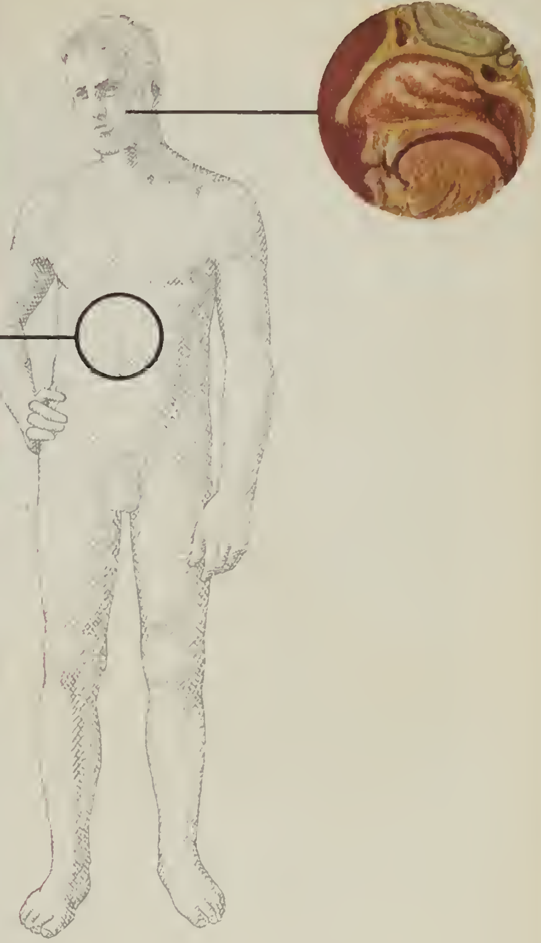
He awakened about 1 a.m. and vomited dark red blood and recently ingested food mixed with whisky. Melena followed and he was transferred to hospital. On admission he was pale, cold and sweating. Apart from epigastric tenderness and black stool on the examining finger after rectal examination, his general physical examination was not remarkable. Temperature was normal, pulse was thin and thready with a rate of 114 beats per minute, and blood



The commonly found "clover-leaf" roentgenographic abnormality of chronic duodenal ulcer due to spastic contractions and scarring.



Typical site of duodenal ulcer showing anatomical relationship to gastroduodenal artery and common bile duct.



pressure measurement was 104/60mm. of mercury. Hemoglobin estimation was 8.6 grams per cent, but white blood count, chest x-ray and urinalysis were within normal limits. No further bleeding occurred. After blood transfusions and a suitable medical regime he was dismissed two weeks later and advised to return later for consideration of surgery.

the care of the ulcer patient suffering from a viral infection of the upper respiratory tract is additionally handicapped by the local and constitutional symptoms so produced. Indifference to food often makes it difficult to "feed a cold" even in a patient without an ulcer. In the ulcer patient this becomes more than a homily, for malaise and apathy towards irksome routine produce a lack of interest in adhering to an ulcer program and result in its eventual failure if these symptoms are not relieved. The absence of curative treatment for these viral infections has spawned many a strange therapeutic offspring and some of the more generally accepted remedies contain a special risk for the ulcer patient.

To the gastric physiologist, the shot heard around the world was not fired at Concord but was discharged through the stomach of Alexis St. Martin. The worthy voyageur had a more than modest thirst and on several occasions William Beaumont observed through the resulting fistula the changes of gastritis which followed an immoderate ingestion of alcohol.[3] It is now well known that alcohol stimulates the production of gastric juice and the patient with an ulcer, even in remission, should not drink alcohol without first taking food, milk or antacid. The use of various alcoholic remedies for the common cold is to be strongly discouraged in this type of patient. Factors already present can produce an acute exacerbation of ulcer symptoms without the added stimulus of alcohol.

Headache and facial pain, sore throat and generalized aching are subjective discomforts of viral infections of the upper respiratory tract or their complications. Relief from them is usually sought in the family medicine cabinet, and of all the medications habitually stored there, salicylates are the most frequently used. Oral ingestion of salicylates has produced

I can taste, Doctor!

On Sippy diet or unrestricted regimen, food tastes better to the patient with a cold when you prescribe the oral decongestant

Triaminic® *tablets*

Each timed-release tablet contains:

Phenylpropanolamine hydrochloride	50 mg.
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One tablet on arising, in midafternoon and at bedtime assures round-the-clock relief. You may occasionally encounter these side effects: drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. Precautions: the possibility of drowsiness should be considered by patients engaged in mechanical operations requiring alertness. Use with caution in patients with hypertension, heart disease, diabetes, or thyrotoxicosis.

(Advertisement)

substernal pyrosis and sometimes epigastric pain in susceptible individuals. Bleeding from erosions of the gastric mucosa has followed their use and has been severe enough in some instances to cause hematemesis and melena.[4] It has been suggested that interference with the protective mucous layer of the stomach allows this to happen. There is no evidence that hypersecretion occurs, but the taking of aspirin has been followed by exacerbation of ulcer symptoms and occasionally by gastrointestinal bleeding.[5] The ulcer patient with a cold should take salicylates with an antacid, or preferably other means of symptomatic relief should be found.

Caffeine has two actions on gastric secretion. One directly stimulates production of acid and the other potentiates the out-pouring of gastric juice as a response to other stimuli.[6] In high doses to animals, it has produced erosive gastritis and peptic ulceration. Caffeine-containing beverages are discouraged for the ulcer subject and forbidden during an acute exacerbation.[7] Many cold remedies contain caffeine.

To sufferers from allergic rhinitis springtime brings symptoms of nasal obstruction, loss of taste and smell and malaise similar to those caused by viral infection but due instead to allergens which at that time of year are principally tree pollens. Relief from these symptoms can be obtained, though not wisely, by the use of steroid medication. Unfortunately, chronic sufferers from these allergies have used this approach with varying degrees of success. Steroid hormones increase gastric secretion and delay the healing of experimental ulcers.[8,9] Clinically their administration has been associated with reactivation of healed duodenal ulcers, and with bleeding and perforation which were not always preceded by typical ulcer distress. Because of these harmful effects, their use in the ulcer patient is best avoided for other than serious medical problems and then only with adequate antacid coverage.

Summing up

It is immaterial by which pathways the malaise and lassitude, depression and irritability activate an ulcer, but it is the physician's responsibility to ensure that the medications he selects to relieve the symptoms of a cold do not further aggravate the ulcer.

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Coaches M.D.'s Probe Sport Safety

One hundred fifty persons from a twenty-county area met at Bucknell University in late March to discuss problems involved in training athletes and protecting them from injury. Sponsored by The Geisinger Medical Center, Danville, together with the host university, The Pennsylvania State University, and Bloomsburg State College, the conference included lectures, seminars, and demonstrations.

Physicians, athletic directors, coaches, and trainers made up the faculty. Endorsed by the Pennsylvania Medical Society through its Sports Injuries Advisory Committee, the conference was also approved by the American Academy of Orthopedic Surgeons, and was accredited for five hours by the American Academy of General Practice.

Staging the first such session in 1961, the Geisinger institution pioneered this type of endeavor on the eastern seaboard. This year's conference—the third in this area—was held in response to requests from many coaches and school officials.

CALLING SIGNALS—Discussing prevention and treatment of athletic injuries are, from left, Pat Richter, Washington Redskins end, "Rip" Engle, former head football coach at The Pennsylvania State University, Bill Nelsen, Pittsburgh Steelers quarterback, and Leonard F. Bush, M.D., chief of staff at The Geisinger Medical Center.

Water Problem Study Set

Pennsylvania's water pollution problems, along with those of Delaware, New Jersey, Maryland, Virginia, West Virginia, and the District of Columbia, will come under intensive scrutiny in a $2 million laboratory to be constructed in Baltimore.

One of twelve such facilities being built throughout the nation, the unit will probably be in use by late 1967.

15th Health Conference Slated for August 7-11

An air-conditioned setting, and approval for 18 hours of PAGP accreditation are "drawing cards" for the Fifteenth Annual Health Conference scheduled for August 7-11 at University Park.

Edward V. Ellis, Ph.D., conference chairman, cited the theme, "Dynamics of Cooperation: Order versus Chaos," as reflecting the need for cooperation between all health-welfare organizations and industry in dealing with health problems.

For further conference information, write to Dr. Ellis at the Pennsylvania Department of Health, P. O. Box 90, Harrisburg.

Cystic Fibrosis Research Aid in State Listed

A total of $282,278 was allocated in 1965 for research in cystic fibrosis in Pennsylvania, according to Milton Graub, M.D., Philadelphia pediatrician and president of the National Cystic Fibrosis Research Foundation.

The foundation and the National Institutes of Health both awarded grants.

Of the total, $253,278 was allocated to Philadelphia projects.

Two of the thirty-five care, research, and teaching centers supported by the national group are located in Philadelphia—one at St. Christopher's Hospital, the other at Children's Hospital.

Research in cystic fibrosis also is being carried on at Einstein Medical Center, Hahnemann Medical College and Hospital, the University of Pennsylvania, and at Children's Hospital in Pittsburgh.

A treatment clinic is located in Harrisburg Polyclinic Hospital, and another at Wilmington General.

Dr. Graub said a basic research program has been started by the national foundation which, hopefully, will employ the resources of biochemical investigation, from electron microscopy to tissue culture, to close gaps in current scientific and medical knowledge concerning cystic fibrosis.

Grants Here in Millions

The Public Health Service announced that in fiscal year 1965 a total of 1,061 research grants for $37,838,332 were awarded in Pennsylvania. The total for the nation was more than $574,000,000.

Grants given were in support of research studies aimed at major diseases and other public health problems, and of the search for fundamental knowledge in the biomedical sciences.

The University of Pennsylvania received 251 grant awards totalling $10,272,582, the University of Pittsburgh, 228 grants amounting to $6,647,882.

Other grant recipients included:

Hahnemann Medical College and Hospital, 48 ($1,702,160); Jefferson Medical College and Medical Center, 66 ($1,879,031); Woman's Medical College, 22 ($553,083); Temple University, 64 ($2,199,292); Children's Hospital of Philadelphia, 20 ($1,650,700); Albert Einstein Medical Center, Philadelphia, 41 ($1,409,432).

Hershey's Future: Endless Possibilities

Dean Harrell Describes Medical-Center-to-Be

Speaking to representatives of health fields, industry, and government on the day of the Hershey Medical Center's groundbreaking, George T. Harrell, Jr., M.D., dean of the developing institution, spelled out the ambitions and hopes he and his colleagues share for Pennsylvania's seventh medical school.

"Today a dream is beginning to materialize," he said. "The basic science department for which we have broken ground, and which will also contain the teaching laboratories, should be under construction by May of this year, for occupancy in early fall, 1967."

A clinical department, a steam plant, and an animal farm probably will also start to take form within the present year.

Already under way is what Dean Harrell regards as the most important phase of the school's development—the recruitment of faculty.

"Practicing physicians from the Hershey area have been selected to serve as 'role models' of the type of family physician we want to see our students become during the next twenty to thirty years," he explained. Faculty recruitment will continue as building units are completed and new departments are set up.

This summer will see the selection of the school's first students. "We are hoping to admit at least forty in our first class," Dr. Harrell stated, "but if there are enough well-qualified candidates, we will go to the maximum for which the initial structures are designed—sixty-four students to a class. We are actually interviewing students right now, but by the national 'ground rules,' we may not officially accept any until September, 1966, one year before they are to matriculate."

The dean pointed out that medicine has tended, in the past one hundred years, to focus its educational programs on organic and biologic aspects, neglecting the humanistic approach. To counterbalance this emphasis, he said that "We propose to establish the first Department of Humanities set up in any medical school, with the educational program interwoven into the student's basic biologic courses. We believe that on this basis the doctor will, for the rest of his life, be able to continue his education in applying scientific knowledge to patient care in the community, as part of his job.

"The approach to problems of life, death, research, and other philosophic, ethical, or religious questions should be not just from this country's point of view, but from that of all peoples, all over the world."

Dr. Harrell indicated that the curriculum would be kept as flexible as possible, so that students will not be forced into a rigid mold.

"We will let each student develop his own particular medical interest in depth; the patient wants his physician to explore his medical problem to the fullest extent that the physician's capability and his fund of information will permit.

"As a senior year elective, we will offer students the opportunity to go abroad, working in a mission hospital or other health unit in an underdeveloped country, as close to people with major disease problems as the student can get. This experience ought to give the student a new frame of reference when he comes back for his final six months' study here. Pilot experiments have indicated that this kind of venture usually is the greatest emotional experience a student can have in relation to his future work with people."

Dr. Harrell stressed the fact that past policies and achievements of the Hershey educational interests will help shape and direct the medical school's future course.

"We will emphasize excellence in the educational program, and focus on the individual student and patient—for the practice of medicine is essentially a highly confidential, interpersonal relationship between two people," the dean pointed out. "We recognize the need for training personnel to develop new knowledge, new concepts, and new methods. Our program for doing these things looks forward half a century—perhaps more."

Temple Plans Seminar On Psychiatry for GP

"Psychiatry, 1966, for the General Practitioner" will be the theme of a two-day seminar in Philadelphia November 5-6, offered by the department of psychiatry of Temple University Health Sciences Center.

The seminar will focus on the latest advances in psychiatry as they apply to physicians in general practice, with emphasis on sexuality and psychopharmacology.

In addition, there will be an afternoon model psychiatric outpatient case presentation, and a series of round table discussions on "burning issues" in office practice.

Guest participants will include Drs. William H. Masters and Virginia E. Johnson of Washington University, St. Louis; M. Ralph Kaufman of Mt. Sinai Hospital, New York; Fritz Freyhan of the National Institute of Mental Health, and Heinz E. Lehman, clinical director of Douglas Hospital, Montreal.

For information, contact R. Bruce Sloan, M.D., Temple University Hospital, Philadelphia 19140.

Allied Health Unit To Open at Temple

Training for axillary personnel, leading to Bachelor of Science degrees, will be provided in a College of Allied Health Professions being established at the Temple University Health Sciences Center.

Students who have completed two years of liberal arts work at Temple or some other accredited undergraduate college or university may specialize in medical technology, nursing, occupational therapy, physical therapy, or medical records library science.

DR. BURNEY

In announcing plans for the new college, Drs. Millard E. Gladfelter and Leroy E. Burney, president, and vice-president for the health sciences, respectively, stressed that Temple is taking a logical step in providing a means for educating men and women to perform essential activities which can relieve physicians and complement and supplement their work.

Facilities of the college will be housed in the new Allied Health Sciences Center due to be completed in 1969. Enrollment, by 1975, is expected to total 360.

M.D.'s in The News

Drs. James M. Smith of Carlisle, and **Clifford H. Urban** of Norristown, have been named members of the State Society Commission on Forensic Medicine of the Council on Governmental Relations.

Octavius A. Capriotti, M.D., of Souderton, chief of ophthalmology at Grand View Hospital, Sellersville, has started a second volunteer tour of service on the S.S. Hope now in Nicaragua.

Thomas M. Durant, M.D., who is professor of medicine at Temple University School of Medicine, has been named full-time chairman of the division of medicine at Philadelphia's Albert Einstein Medical Center. The appointment, according to spokesmen of both Temple and Einstein, will "make even more meaningful and effective the affiliation between the two institutions." Other full-time appointments are planned at the 1,000-bed Einstein Center. Dr. Durant joined the Temple University School of Medicine faculty in 1936. In 1956, he was named chairman of its division of medicine. He has been president of a number of medical organizations and has received many honors.

Dr. Durant

Also at Einstein, **Rudolf Holemans, M.D.,** a Belgian-born physician, has been named the Morris Denkin Memorial Fellow in Hematology and will establish a coagulation laboratory at the institution.

Temple University School of Medicine has announced the promotion of 67 members of its faculty. Seven of the ten men promoted to the rank of professor are physicians: **Drs. Joseph H. Boutwell, Jr.,** department of biochemistry; **Frederick Murtaugh, Jr.,** neurosurgery; **John W. Lachman** and **Howard H. Steel,** orthopedics; **Harvey F. Watts** and **Elizabeth V. Lautsch,** pathology; **Charles A. Papacostas,** pharmacology. Given the rank of clinical professor were **Drs. Lewis R. Wolf** and **Robison D. Harley,** ophthalmology; **Norman Kendall,** pediatrics; **H. Keith Fischer** and **Steven Hammerman,** psychiatry; **James S. C. Harris, Samuel L. Cresson,** and **H. Stuart Irons,** surgery.

Theodore S. Danowski, M.D., endocrinologist at the University of Pittsburgh, was featured in a cover story in the March 14 issue of *Modern Medicine.*

Dale G. Johnson, M.D., has been appointed director of surgical research at The Children's Hospital of Philadelphia.

Harold H. Morris, M.D., associate professor of psychiatry at the University of Pennsylvania School of Medicine, has been named director of the division of psychiatry in the department of medicine of Misericordia Hospital, Philadelphia.

Wendell B. Gordon, M.D., Pittsburgh, received the American Heart Association's Award of Merit.

Allegheny County Coroner **William R. Hunt** was named "Man of the Year in Medicine" by the Pittsburgh Academy of Medicine.

F. Douglas Lawrason, M.D., executive director of medical research at Merck Sharp and Dohme Research Laboratories, West Point, was named vice-president for medical affairs.

John D. Harris of Irwin, a senior at the University of Pittsburgh School of Medicine, is working at a Nepal mission hospital, under a Smith Kline and French Laboratories foreign fellowship.

The first Obstetrics and Gynecology Prize at Jefferson Medical College, honoring **Mario A. Castallo, M.D.,** clinical professor, was awarded to fourth-year student **Robert C. Vannucci.**

Charles R. Reeder, M.D., Johnstown, is the Cambria County Medical Society's "practitioner of the year."

Twenty-five-year service citations were awarded by Philadelphia General Hospital to **Drs. James Butcher, Elmer L. Grimes, Tzvee N. Harris, Jacob J. Kohlhas, Augustin R. Peale, Frederick A. Robinson,** and **Francis Schumann.** Also honored was **J. Albright Jones, M.D.**

Raymond A. Werts, M.D., Renovo, was named "Man of the Year" by the Rotary Club in his community.

John J. McDonald, M.D., Nesquehoning, received the Shamrock Award of the Panther Valley Irish-American Society. Dr. McDonald retired in 1952 after practicing medicine since 1911.

Appointed to Governor William Scranton's pneumoconiosis committee are the following M.D.'s: **Charles L. Wilbar, Jr.,** Camp Hill, **Eugene P. Pendergrass** and **Leon Cander,** both of Philadelphia, and **Jan Lieben,** Harrisburg.

Featured speakers at the annual meeting of the State Medical Society of Wisconsin were **Jesse T. Littleton,** M.D., Sayre, and **Alexander J. Michie,** M.D., Philadelphia.

Francis T. McGinnis, M.D., Philadelphia, is the new president of Misericordia Hospital's medical staff.

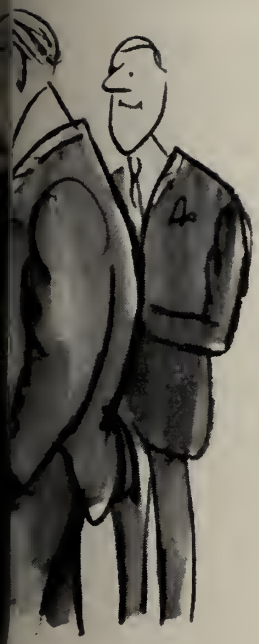
William Likoff, M.D., clinical professor of medicine and director of the cardiovascular section at Hahnemann Medical College and Hospital, has been chosen president-elect of the American College of Cardiology.

Rudolf Holemans, M.D., Philadelphia, received a $2,500 prize in the fourth national Cochems Competition; the award is made for the best paper submitted on thrombophlebitis and basic vascular problems. His essay was entitled, *Blood Plasminogen Activator: An Experimental Study of Its Origin and Mechanism of Release.*

Participating in the Cleveland meeting of the American College of Surgeons were: **Drs. Bernard Fisher, Henry T. Bahnson, Theodore Drapanas, Anthony F. Susen, Daniel W. Elliott, Joseph A. Hepp, Franklin D. Hoffman, Robert W. Saul, John T. Dickinson, Raymond E. Jordan, George J. Magovern, Francis C. Jackson, Jucie S. Young,** and **Karl Zimmerman,** all of Pittsburgh; **Jack W. Cole, Robert G. Ravdin, George A. Hahn, John B. Montgomery, John J. Murphy, P. Robb McDonald, David Myers, Harry E. Bacon, Julian Johnson, Rudolph C. Camishon, Thomas F. Nealon, Jr., Kyril B. Conger,** and **Peter Randall,** all of Philadelphia. **James M. Cole,** Danville, also took part in the program.

Newly-elected officers of the Philadelphia Allergy Society are: **Aaron E. Fishman, M.D.,** president; **Elizabeth B. Brown, M.D.,** vice-president; and **C. Marcus Hanna, M.D.,** secretary-treasurer. All are residents of Philadelphia.

Saxon



Well, Doctor Cunningham, I was just telling Herbert I should talk to you about my cough. It comes from down here and . . .

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Each 5 ml. teaspoonful of Novahistine DH contains codeine phosphate, 10 mg. (Warning: may be habit forming); phenylephrine hydrochloride, 10 mg.; chlorpheniramine maleate 2 mg.; chloroform (approx.), 13.5 mg.; l-menthol, 1 mg. (Alcohol 5%). Each 5 ml. of Novahistine Expectorant contains the above ingredients and, in addition, glyceryl guaiacolate, 100 mg.

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Postgraduate Courses

ABINGTON

Basic Science and New Techniques in Medical Disease, Abington Memorial Hospital, first Tuesday of each month, through June, 4 P.M.; 10 hours AAGP. Contact P. M. Roediger, M.D., at the hospital.

ALLENTOWN

Continuing Medical Education TV Series, New York Academy of Medicine, at Sacred Heart Hospital, first, second, and fourth Wednesdays, through June, 12 M. Contact E. K. Sipes, M.D., 24 North 18th Street (18104).

(This course is held at Allentown Hospital; 3 hours AAGP.)

Pediatrics (The Limping Child),* May 12, 9 A.M.–12:30 P.M.

ALTOONA

Positive Approach to Strokes * at Mercy Hospital, May 5, 10 A.M.,–12:30 P.M.; 2 hours AAGP; fee, $5.00.

BEDFORD

Eighteenth Annual Scientific Session, PAGP, at Bedford Springs Hotel, June 8–11; 20 hours AAGP. Contact R. E. Bryan, M.D., 514 West Third Avenue, Warren 16365.

BETHLEHEM

(This course is held at St. Luke's Hospital; 8:30 A.M.–12 M.; 3 hours AAGP.)

Diabetes (Problems of Diabetic Children),* May 19; fee, $7.00.

BUSHKILL AREA

Recent Advances in Surgery,* at Tamiment Inn, May 5–7; fee, $50; 18 hours AAGP.

DOWNINGTOWN

Eighth Annual Symposium, Chester County Academy of General Practice, Pennsylvania Hospital, Continuing Education Program; at St. Anthony's Lodge, May 18, 9:30 A.M.–5 P.M.; 6 hours AAGP. Contact F. M. Richardson, M.D., Pennsylvania Hospital, Eighth and Spruce Streets, Philadelphia 19107.

EASTON

Cancer Seminar, Wainwright Tumor Clinic Association of Pennsylvania, at Easton Hospital, May 11, 9 A.M.–5 P.M.; 6 hours AAGP. Contact H. R. Gilmore, Jr., M.D., P.O. Box 90, Harrisburg 17120.

HARRISBURG

Sixteenth Postgraduate Seminar, Southcentral Chapter PAGP, at Harrisburg Hospital, May 12, 9:20 A.M.; 6 hours AAGP. Contact S. D. Ulrich, M.D., 3420 Derry Street, Harrisburg 17111.

LANCASTER

Medical Seminars, Lancaster General Hospital and Temple University Medical Center, at Lancaster Hospital; no registration fee; luncheon, seventy-five cents; AAGP accreditation; meet at 11 A.M., each date: May 5, "The Patient with Multiple Injuries"; May 18, "Glucose and Fatty Acid Metabolism in Diabetes Mellitus." Contact H. W. Miller, M.D., 525 North Duke Street (17602).

Clinical Medicine and Surgery, Lancaster City and County Medical Society, at Holiday Inn, May 14, 10 A.M.; 3 Hours AAGP. Contact R. H. Weber, M.D., 1841 Millersville Pike, Lancaster 17603.

McKEES ROCKS

Management of the Jaundiced Patient—Medical and Surgical,* at Ohio Valley General Hospital, May 25, 9 A.M.–12:15 P.M.; fee, $6.00; 3 hours AAGP.

PHILADELPHIA

Family, Sex, and Marriage Problems in General Practice,* at Philadelphia Marriage Council on Wednesdays, through May 4, 3:30–5:30 P.M.; 12 hours AAGP. Contact Martin Goldberg, M.D., School of Medicine, University of Pennsylvania (19104).

New Facets of Cancer in 1966, Temple department of surgery and Temple alumni, at Temple University School of Medicine, May 5, 1–10 P.M. 9 hours AAGP. Contact H. O. Eckleman, 3401 North Broad Street (19140).

Medical Alumni Homecoming Scientific Program, at Temple University School of Medicine, May 6, 9:30 A.M.–12 M., 1:30–5 P.M.; 6 hours AAGP. Contact Mr. Eckleman, as above.

Internal Medicine in Light of Recent Developments, American College of Physicians, at Pennsylvania Hospital, May 9–13; fee, ACP members—$60, nonmembers—$100. Contact E. C. Rosenow, Jr., M.D., Executive Director, 4200 Pine Street (19104).

Microsurgery of the Temporal Bone, Temple University School of Medicine, first week of each month. Contact B. J. Ronis, M.D., Temple University School of Medicine, Broad and Ontario Streets (19140).

Broncho-esophagology, Temple University School of Medicine, May 2–13, 1966. By Drs. C. M. Norris and G. F. Tucker, Jr. Regarding tuition, etc., contact Chevalier Jackson Clinic, Temple University Medical Center, 3401 North Broad Street (19140).

Animal and Clinical Pharmacologic Techniques in Drug Evaluation, Hahnemann Medical College and Hospital, at Marriott Motor Hotel, May 16–20. Contact P. E. Siegler, M.D., director, 230 North Broad Street (19102).

Interpretation and Therapy of Cardiac Arrhythmias, Hahnemann Medical College and Hospital, at Marriott Motor Hotel, July 25–29. Contact Dr. Dreifus, as above.

Seventeenth Hahnemann Symposium, Nutritional Dysfunction, at Sheraton Hotel, in December. Donald Berkowitz, M.D., director.

POTTSVILLE

(These courses are held at Pottsville Hospital, 11:30 A.M.–2 P.M., on dates indicated; each 3 hours AAGP.)

Diagnosis, Management of Pelvic Pain,* May 12.

When Is Lung Cancer Curable?* June 9.

SCRANTON

(This course is held at Mercy Hospital; 9:30 A.M.–12 M.; 3 hours AAGP.)

Advances in Diabetes,* May 18.

SHAMOKIN AREA

Symposium, Pennsylvania AGP and Lederle Laboratories, at Holiday Inn, Shamokin Dam, May 11, 10 A.M.–4 P.M.; 4 hours AAGP. Contact Harriet M. Harry, M.D., 319 South Pugh Street, State College 16801.

WILKES-BARRE

(This course is held at Wilkes-Barre General Hospital; 3 hours AAGP.)

Trauma,* May 19, 8:30 A.M.–12 M.

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* These courses sponsored by Jefferson Medical College and The Pennsylvania State University. For further course information, contact J. H. Killough, M.D., 1025 Walnut Street, Philadelphia 19107.

• **About This Section:** To be publicized, courses must be one-half day (three hours) or more in length, designed for licensed doctors of medicine, and of interest to physicians in an area of several counties or more. Information must be received by the first day of each month to appear the following month. Each item will appear no more than four times Address: Commission on Medical Education, 230 State Street, Harrisburg 17105.

Write Now

"Fine" Print: Assorted pamphlets available gratis, as follows: From local offices of the American Heart Association—*Sodium Restricted Diet, 500 Milligrams; Office Evaluation of the Hypertensive Patient; Hypertension* (monograph); and *Jones Criteria for Guidance in the Diagnosis of Rheumatic Fever*. . . . From the AMA Committee on Rating of Mental and Physical Impairment, 535 North Dearborn Street, Chicago 60610: *Guides to the Evaluation of Permanent Impairment—The Respiratory System*, from AMA Program Service Department, (same address as above)—*The American Medical Association* (history, purpose, function, etc.).

Blood Lines: To be had from: American Association of Blood Banks, 30 North Michigan Avenue, Chicago 60602—*Supply, Demand, and Human Life* (gratis). . . . From the Public Affairs Committee, 381 Park Avenue South, New York 10016—*Blood—New Uses for Saving Lives* (25 cents each).

They're All Heart: From local Heart Association offices: Catalog, *Scientific Journals and Books of the American Heart Association*, listing the organization's publications available.

Medical Leaders Set for Assistants' Convention

James Z. Appel, M.D., Lancaster, president of the American Medical Association, will be among the guest speakers at the ninth annual convention of the Pennsylvania Association of Medical Assistants May 13-15 in Johnstown.

William B. West, M.D., State Society president, will also have a role in the program, installing the new officers of the PAMA at the final session.

The convention theme is "Development Through Communication."

An educational program includes a talk on multiple trauma in accidents by James S. Furnary, M.D., and a paper by Sidney A. Goldblatt, M.D., on "The Pathologist and the Law."

Rorer Contest Listed

The three best unpublished papers in gastroenterology or an allied subject, written by interns, residents, or fellows, will receive the 1966 awards of the Willian H. Rorer Company, Inc. Cooperating in sponsoring the competition is the American College of Gastroenterology.

Awards will be made at the annual convention banquet of the college, to be held in Philadelphia next October. May 15 is the entry deadline.

For supplemental information, write the Research and Scientific Investigation Committee, American College of Gastroenterology, 33 West 60th Street, New York, N. Y. 10023.

Center Plans GP Training

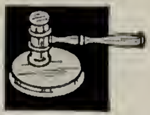
Geisinger Medical Center, Danville, expects to play a constructive role in the medicare program which begins, in part, in July.

The medicare participation is one of the center's goals this year.

Another is the development of a training program for a general practice residency.

Other plans include establishment of a section in gynecological endocrinology and of a seizure clinic, and improvements in management of trauma and stroke patients and in microscopic neurosurgical methods.

The center said it also will install equipment to permit eye surgery using freezing techniques.



Meetings

STATE SOCIETY

MAY

Board of Trustees and Councilors—Penn Harris Motor Inn, Harrisburg, May 18–19.

JUNE

Council on Public Service—June 18.

SEPTEMBER

Council on Public Service—September 10.

OCTOBER

One Hundred Seventeenth Annual Session—Penn Sheraton Hotel, Pittsburgh, October 9–13.

REGIONAL

MAY

Spring Meeting, Pennsylvania Allergy Association—York Valley Inn, just east of York, May 6–8.

Annual Meeting, Pennsylvania Society of Internal Medicine—Bedford Springs Hotel, Bedford, May 13–15.

Annual Meeting, Pennsylvania Society of Anesthesiologists—Bedford Springs Hotel, Bedford, May 14.

Bicentennial Anniversary Meeting, Medical Society of New Jersey—Haddon Hall, Atlantic City, May 14–18.

Annual Middle Atlantic Hospital Assembly—Convention Hall, Atlantic City, May 17–19.

Pennsylvania Academy of Ophthalmology and Otolaryngology—Bedford Springs Hotel, Bedford, May 18–22. The Pennsylvania Physician's Art Association will meet jointly with the PAOO.

NATIONAL

JUNE

International Congress on Smoking and Health—Hilton Hotel, New York, June 5–8.

AMERICAN MEDICAL ASSOCIATION ANNUAL CONVENTION—CHICAGO, JUNE 26–30.

Deaths

○ **John F. Bacon,** York; University of Pennsylvania School of Medicine, 1922; age, 67; died March 4, 1966. Dr. Bacon, former chief of York Hospital's surgical staff, was chairman of the York Rotary Club's crippled children's committee which for many years served patients unable to afford private orthopedic care. He is survived by his wife and a son, John D. Bacon, M.D.

Uri A. Carpenter, Pittsburgh; Jefferson Medical College, 1922; age, 66; died March 3, 1966. Dr. Carpenter, for the past seven years a physician for the Veterans Administration office in Pittsburgh, belonged to Phi Beta Pi, Sigma Nu, Masonic groups, and veterans' organizations. He is survived by three daughters, a son, and a brother.

○ **William V. Christian,** Scranton; University of Maryland School of Medicine, 1929; age, 64; died March 19, 1966. Dr. Christian was a medical examiner for the Scranton School District, and chief medical examiner for the Lithuanian Roman Catholic Alliance of Wilkes-Barre. Surviving are his wife, a son, and four sisters.

○ **James H. Erlenbach,** Sacramento, California (formerly of Fountain Springs and Ashland, Pennsylvania); Tufts University School of Medicine, 1914; age, 76; died February 13, 1966. Dr. Erlenbach was formerly chief of obstetrics at Ashland Hospital. There are no known survivors.

○ **George T. Faris,** Glenside; Jefferson Medical College, 1909; age, 83; died March 6, 1966. A member of Alpha Omega Alpha, Delta Tau Delta, and Nu Sigma Nu fraternities, Dr. Faris also was a Fellow of the American Board of Otorhinolaryngology, the Medical Club of Philadelphia, the Masons, Rotary, and several other organizations. His survivors include his wife, a daughter, and a son, Samuel S. Faris, III, M.D.

Samuel H. Fisher, Greenville, South Carolina (formerly of Philadelphia County); Temple University School of Medicine, 1943; age, 48; died March 16, 1966, less than two weeks after the death of his wife, Marguerite, who was also a physician. A daughter, three sons, and a sister survive.

○ **Elvin W. Gilchrist,** Bethlehem; University of Pennsylvania School of Medicine, 1934; age, 64; died January 7, 1966. Chief of St. Luke's Hospital's cardiac clinic since 1942, Dr. Gilchrist had formerly been president of the Visiting Nurses Board, the Lehigh Valley Heart Association, and the Lions Club. He belonged to the Congress of Angiology, was a former president of the Northampton County Medical Society, and in years past had been a member of the Northampton County Family Counseling Service. Among his survivors are his wife, one daughter, two sisters, and two brothers.

○ **Lawrence Goldbacher, Sr.,** Elkins Park; Jefferson Medical College, 1920; age, 75; died January 25, 1966. Dr. Goldbacher, a proctologist, had written books on his specialty and had invented many proctological instruments. He had been on the staffs of Jeanes and Physicians' and Surgeons' hospitals, and at one time had been chief of proctology at the old Women's Hospital. Surviving him are his wife, a daughter, a son—Lawrence Goldbacher, Jr., M.D.—and a brother.

○ **Marvin C. Goodman,** Lancaster; University of Pennsylvania School of Medicine, 1935; age, 56; died March 8, 1966. Dr. Goodman was a staff member at Lancaster General Hospital and a consultant to the Veterans Administration Hospital in Lebanon and to the Lancaster County Society for Crippled Children and Adults. He was president of the medical staff and chief of the orthopedic outpatient department at the State Hospital for Crippled Children, Elizabethtown. He was a Fellow of the American Academy of Orthopedic Surgeons. He is survived by his wife, a daughter, a son, two sisters, and a brother.

○ **Wilbur H. Haines,** Merion; University of Pennsylvania School of Medicine, 1911; age, 83; died March 3, 1966. Dr. Haines, formerly associate professor of urology in the University of Pennsylvania Graduate School of Medicine, retired in 1956. He had served a number of hospitals, and was formerly a consultant for the U.S. Public Health Service, and a president of the Philadelphia Urology Society. Surviving him are his wife, two daughters, and a son.

○ **Roland J. Herron,** Monessen; University of Pittsburgh School of Medicine, 1943; age, 47; died January 21, 1966. Dr. Herron joined the staff of Charleroi-Monessen Hospital in 1946. In 1959, succeeding his late father, Thomas B. Herron, M.D., he became medical director at the Pittsburgh Steel Company. In addition to holding other medical society memberships, he belonged to the Industrial Medical Association. A director of the Mellon National Bank and a member of its advisory board, he was also active in the American Iron and Steel Institute, the Monessen Chamber of Commerce, the American Legion, and the Elks. He is survived by his wife, his mother, two sons, and two brothers, one of whom is Carroll V. Herron, M.D.

○ **Isaac B. High,** Reading; Jefferson Medical College, 1910; age, 78; died January 31, 1966. Founder of the allergy and bronchoesophagology department at Reading Hospital, Dr. High was from 1927 to 1935 chief of the hospital's eye, ear, nose, and throat dispensary. A staff member of the former Hamburg State Tuberculosis Sanatorium for several years, he belonged to the American Board of Otolaryngology and Ophthalmology and the Reading Eye, Ear, Nose, and Throat Society. He is survived by his wife and a sister.

○ **John A. Johnston,** Bridgeville; Hahnemann Medical College, 1911; age, 81; died February 6, 1966. A member of the senior surgical staff at Canonsburg General Hospital, Dr. Johnston was past president of the medical staff. He recently received the PMS Fifty-Year Award. His memberships included Masonic orders and the University Club of Pittsburgh. Among his survivors are three sons, two of whom are M.D.'s—John A., Jr., and David O.; the third son is a dentist.

○ **William P. Kauffmann,** Harrisburg; Georgetown University School of Medicine, 1931; age, 61; died March 8, 1966. Dr. Kauffmann was a member of the Harrisburg State Hospital medical staff. He belonged to the American Psychiatric Association and the Tri-County Mental Health Association. There are no immediate survivors.

○ **George B. Kirk,** Kylertown; Baltimore Medical College, 1898; age, 93; died February 2, 1966. Several years ago, Dr. Kirk received the State Society's Fifty-Year Award. There are no known survivors.

(Continued on page 24.)

ECONOMY

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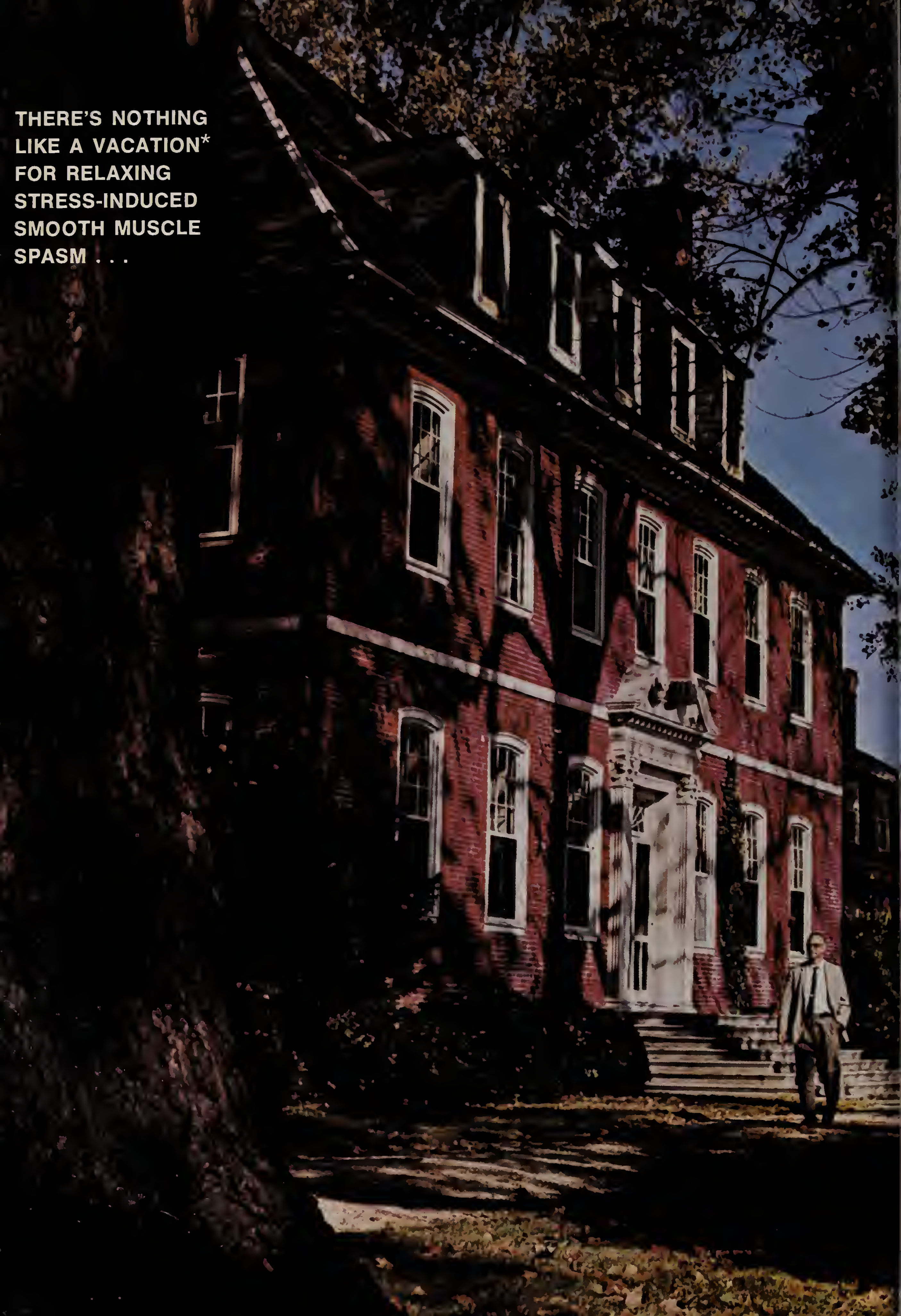
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hyoscine hydrobromide	0.0065 mg.
phenobarbital	(1/4 gr.) 16.2 mg.

(warning: may be habit forming)

IN EACH EXTENTAB

hyoscyamine sulfate	0.3111 mg.
atropine sulfate	0.0582 mg.
hyoscine hydrobromide	0.0195 mg.
phenobarbital	(3/4 gr.) 48.6 mg.

(warning: may be habit forming)

BRIEF SUMMARY: Blurring of vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur on higher dosage levels, rarely on usual dosage. Administer with caution to patients with incipient glaucoma, or urinary bladder neck obstruction. Contraindicated in acute glaucoma, advanced renal or hepatic disease, or a hypersensitivity to any of the ingredients.

REFERENCES: 1. Vollmer, H.: Arch. Neurol. and Psychiat., 43:1057, 1940. 2. Morrissey, J.H.: J. Urology, 57:635, 1947. 3. Krantz, J.C., Jr., and Carr, C.J.: Pharmacological Principles of Medical Practice, 2nd ed., Baltimore (1954), 552.

*This one at Westover, elegant Colonial Virginia plantation, located on the James River near Richmond. Built in the early 1730's by William Byrd II, founder of Richmond, it is now the home of Mrs. Bruce Crane Fisher.

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○ **Jeremiah A. Klotz**, Allentown; University of Cincinnati College of Medicine, 1916; age, 75; died February 6, 1966. From 1946 to 1956, Dr. Klotz was plant physician for the E. I. DuPont de Nemours Company, Wilmington, Delaware. He belonged to Masonic groups, and was a charter member of the Lehigh Shrine Club. Surviving are his wife and a son, Jeremiah A., Jr., M.D.

○ **George J. Kohut**, State College; Hahnemann Medical College, 1936; age, 56; died March 8, 1966. Dr. Kohut was a Diplomate of the American College of Surgeons. Surviving are his wife, two daughters, two sons, three sisters, and a brother.

○ **Wallace M. Martin**, Philadelphia; University of Texas Medical Branch, 1914; age, 78; died February 13, 1966. A staff member at Frankford Hospital, Dr. Martin was a former chief of obstetrics at that institution. He belonged to Masonic organizations. His wife survives.

○ **Joseph C. Mattas**, Altoona; Jefferson Medical College, 1930; age, 63; died February 12, 1966. Dr. Mattas was a consultant to the Pennsylvania Bureau and to the National Association for Rehabilitation. He was a past president of the Blair County Medical Society and a director of the Blair County Society for Crippled Children and Adults. At Mercy Hospital, he was chief of the orthopedic department and director of the staff. His survivors include his wife, a daughter, a son, two sisters, and two brothers, one of whom is Oliver E. Mattas, M.D.

○ **James C. McConaughey**, Wilmington, Delaware (formerly of Philadelphia and Bryn Mawr); Jefferson Medical College, 1914; age, 77; died February 3, 1966. Formerly medical director of the Philadelphia Electric Company, Dr. McConaughey was a Fellow of the Industrial Medical Association, and was on Jefferson Hospital's medical staff. He belonged to Masonic orders. A daughter survives.

John H. McCutcheon, Philadelphia; Hahnemann Medical College, 1913; age, 76; died February 26, 1966. Dr. McCutcheon was formerly a member of the Philadelphia and Pennsylvania Medical Societies and of the AMA. His survivors include his wife, two daughters, and a son, John H., Jr., M.D.

○ **Thomas E. McMurray, Jr.**, Wilkinsburg; University of Pittsburgh School of Medicine, 1933; age, 57; died February 2, 1966. Dr. McMurray is survived by his wife, two daughters, and his parents; (his father, Thomas E., Sr., is also a physician).

○ **Joseph T. Monaco**, Philadelphia; Georgetown University School of Medicine, 1940; age, 49; died February 27, 1966. Dr. Monaco, psychiatrist and clinical director at Philadelphia State Hospital, also was chief of psychiatric services at Lower Bucks County and Northeastern hospitals, and an associate psychiatrist at Nazareth and St. Mary's hospitals. Surviving are his wife, two daughters, and a sister.

○ **Harold L. Noble**, Washington; New York University School of Medicine, 1930; age, 62; died February 5, 1966. Dr. Noble was the staff examining physician of the Baltimore and Ohio Railroad. He belonged to many organizations, including the Masonic order and Phi Beta Pi. He is survived by his wife (Ellenetta Beachley Noble, M.D.), his mother, a daughter, a son, and two sisters.

○ **Paul Novack**, Philadelphia; Hahnemann Medical College, 1949; age, 40; died February 8, 1966. A member of his alma mater's faculty since 1957, Dr. Novack had been director of the institution's cardiac catheterization laboratory since 1960. He also was attending cardiologist at the Veterans Administration Hospital, and had formerly served as clinical physiologist at Einstein Medical Center's Southern Division. He wrote many scientific papers, and was a Diplomate of the American Board of Internal Medicine. His survivors include his wife, his parents, and two daughters.

○ **Edward Y. Ord**, McKeesport; University of Pittsburgh School of Medicine, 1904; age, 86; died January 23, 1966. Dr. Ord had been very active in Masonic groups. Among his survivors are his wife, two daughters, and a son.

○ **Basil T. Owens**, Aliquippa; Jefferson Medical College, 1919; age, 69; died January 22, 1966. In 1960, the Beaver County Medical Society selected Dr. Owens as "Practitioner of the Year." He was on the Rochester and Aliquippa hospitals' staffs. His memberships included Phi Beta Pi and Alpha Omega Alpha. Surviving him are his wife, a daughter, a son, and two sisters.

William J. Padgett, Chester; Howard University College of Medicine, 1924; age, 67; died February 3, 1966. Active in public health work, Dr. Padgett helped lay the groundwork for industrial, maternal, and child health care in Chester. He belonged to many professional and service organizations, and was a board member at Sacred Heart Hospital. He is survived by a son and two sisters.

○ **Jeremiah B. Pearah**, Reading; Jefferson Medical College, 1925; age, 66; died February 27, 1966. Dr. Pearah was a charter member and former president of the Berks County Division of the American Academy of General Practice. His survivors include his wife, a daughter, and a son, Lt. J. David Pearah (M.D.), a medical officer in the U.S. Navy.

Jesse A. Thompson, Williamsport; Temple University School of Medicine, 1926; age, 69; died January 28, 1966. Dr. Thompson formerly belonged to the Lycoming County Medical Society. He is survived by five sisters.

○ **Jacob O. Specter**, Pittsburgh; University of Pittsburgh School of Medicine, 1920; age, 70; died February 10, 1966. A faculty member at his alma mater, Dr. Specter gave over fifty years' service to the YM & WHA of Oakland, and was a member of Masonic groups. Surviving are his wife, a daughter, five sisters, and two brothers.

○ **Arthur R. Vaughn**, Ocean City, New Jersey (formerly of Philadelphia); Jefferson Medical College, 1918; age, 70; died February 14, 1966. Dr. Vaughn had been on the staff of Jefferson Medical College Hospital. He is survived by his wife, a daughter, and a son, Arthur R., Jr., M.D.

○ **Halsey F. Warner**, Philadelphia; Temple University School of Medicine, 1940; age, 50; died January 26, 1966. Dr. Warner was an assistant professor of medicine at his alma mater. Surviving are his wife, his mother, five daughters, and a sister.

○ **Christian S. Wenger**, Lancaster; Jefferson Medical College, 1940; age, 51; died February 1, 1966. Chief of the division of obstetrics and gynecology at General Hospital from 1952 to 1964, Dr. Wenger was a member of many professional organizations, as well as of civic and service groups. His wife, a daughter, two sons, and a brother survive.

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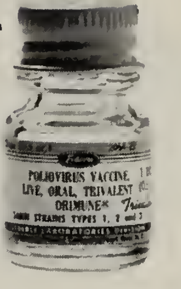

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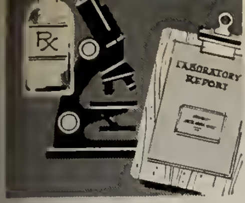

ORIGINAL PAPERS

Renovascular Hypertension

Of twenty-seven patients diagnosed, treated surgically, and later followed up, 80 percent had significant blood pressure reduction

DRS. ROBERT BOWER, ALBERT N. BREST,
and CHARLES C. WOLFERTH, JR.
Philadelphia, Pennsylvania

Since 1954, when Freeman first described renal endarterectomy for hypertension (to restore arterial flow to an eschemic kidney), much clinical experience has accumulated on renovascular hypertension. Despite this fact, the problem of identifying hypertension produced by a dynamically significant stenosis of a renal artery remains a challenge to the clinician and the surgeon.

At Hahnemann Hospital, about 25 percent of the approximately 6-8 percent of the hypertensive population selected for complete renovascular work-up had blood pressure elevation related to dynamic renal artery stenosis.

We are reviewing twenty-seven cases of this condition treated surgically; pertinent clinical data include screening and selective diagnostic studies, summaries of operative treatment, and the postoperative results.

The group studied included twelve males and fifteen females age eighteen to sixty-three years, with a mean age of forty-nine years. The male patients' mean age (fifty-two years) was ten years greater than the females', a disparity explained by the fact that renal artery stenosis was due to fibromuscular hyperplasia in only seven females, whereas all twelve males had arteriosclerotic renovascular disease.

The duration of known hypertension ranged from two months to over ten years, but eleven of the twenty-seven patients had had the condition for one year or less. An abdominal bruit was heard in only four of the twenty-seven patients.

All patients in the group were subjected either to conventional intravenous urography or the rapid sequence (so-called hypertensive) intravenous urography performed by means of rapid injection of the contrast medium, with films taken at one-, three-, and five-minute intervals. The films were reviewed for unilateral disparity in the time appearance of dye, and for significant disparities in renal length.

The results, summarized in Table I, reveal a delay in the dye's appearance on the involved side in sixteen patients—including four in whom that side failed to visualize. In addition, eleven patients showed a disparity in renal length greater than 1.5 cm. on the involved side. Nineteen of the twenty-seven patients showed one or both abnormalities on intravenous urography.

Table II summarizes results of renograms using radioiodinated Hippuran, performed in seventeen patients, eleven of whom had unilateral abnormalities consisting of absence or prolongation of the renal accumulation (Tm) or renal excretion (T½) phases of the isotope curve (Fig. 1).

All eleven were subsequently found to have renovascular hypertension. Two had bilateral curves considered within normal limits; subsequently, both were found to have essential hypertension as their basic pathologic process.

Difficult to evaluate were four patients who had abnormal curves bilaterally; subsequent data demonstrated that three of them had renovascular hypertension. Although it is our impression that the renogram will demonstrate a detectable abnormality in at least 90 percent of patients with dynamic renal artery stenosis, we have found many patients with abnormal renogram curves due to other causes. A normal renogram, therefore, is significant in ruling out renovascular hypertension.

All twenty-seven patients were subjected to renal arteriography by translumbar aortography or by antegrade or retrograde catheter aortography. We prefer the catheter technique, since it affords greater flexibility in rotating the patient and in obtaining definitive oblique or lateral visualizations of the abdominal aorta and the renal arteries.

Table III summarizes arteriography results. The unilateral stenosis group includes (1) patients with localized arteriosclerosis, and (2) those with fibromuscular hyperplasia involving only one renal artery. Similarly, the bilateral stenoses include both arteriosclerotic and hyperplastic lesions. Patients with complete renal artery occlusion arteriographically were all found to have arteriosclerosis. It is noteworthy that renovascular hypertension may exist despite total occlu-

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sion of the main renal artery. In addition, many patients with unilateral or bilateral arteriosclerotic stenosis had clinical and arteriographic evidence of arterial disease involving other areas, notably the coronary, cerebral, and peripheral vessels.

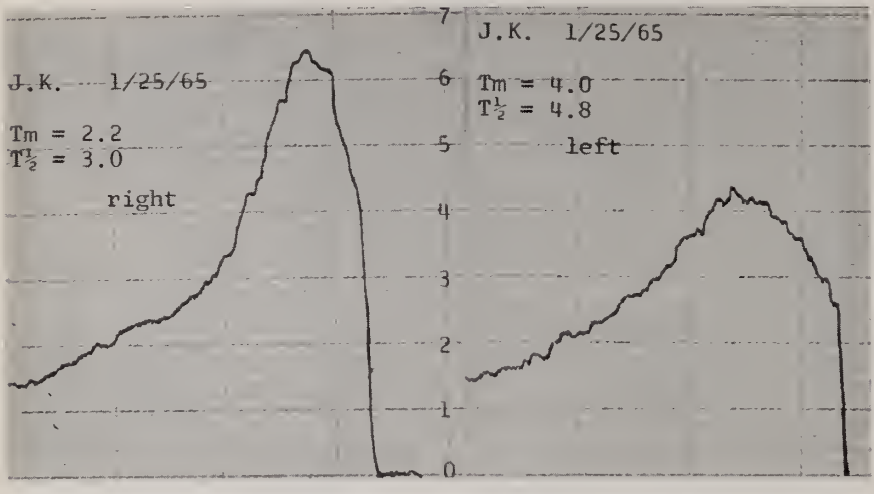

Fig. 1. A typical renogram in a patient with unilateral left renal artery stenosis. The right kidney shows a normal curve. The left shows a prolongation of the accumulation and excretion phases.

Fifteen patients had differential renal function studies performed via ureteral catheterization; this procedure proved reliable in diagnosing renovascular hypertension when the studies were unequivocally positive. Table IV indicates that all seven patients with positive differential renal function studies (50 percent reduction in urine volume and 15 percent decrease in urine sodium on the involved side), were subsequently demonstrated to have renovascular hypertension. Because of technical difficulties in two patients, the study was unsatisfactory. Although ureteral catheterization may involve significant morbidity from postcatheterization hemorrhage and/or fever, we continue to perform differential renal functions as a confirmatory study prior to surgery, and as a basis for future comparison.

TABLE I

Intravenous Urogram

No. Patients	Appearance of Dye Unilateral Delay	Equal	Disparity in Kidney Size >1.5 cm.	<1.5 cm.
27	16	11	11	16

Surgical Considerations

Seven patients in this series were treated by nephrectomy, nineteen by one of several types of arterial reconstruction; one patient had measurement of renal artery pressures and bilateral renal biopsy only. Two patients with late failure following arterial reconstruction were at a second operation subjected to nephrectomy.

Four patients subjected to nephrectomy as a primary procedure had complete occlusion of the ipsilateral renal artery on preoperative arteriography. In one patient with complete occlusion of the renal artery, a successful aortorenal shunt was performed. Table V summarizes the arterial reconstructive procedures used.

TABLE II

I¹³¹ Hippuran Renogram

Result	Renovascular Hypertension	Essential Hypertension
Abnormal curve, unilateral	11	0
Abnormal curve, bilateral	3	1
Normal curve, bilateral	0	2

An aortorenal bypass was done most often, using a dacron shunt 8-10 mm. in internal diameter. Two of these shunts thrombosed postoperatively; one patient underwent reexploration and revision of a kinked aortorenal shunt, with reestablishment of pulsatile flow; the other had a secondary nephrectomy six months after primary graft failure.

One patient had left renal endarterectomy performed in conjunction with resection and replacement graft of the thrombosed distal abdominal aorta. One patient in the endarterectomy group had subsequent occlusion of the endarterectomized segment; nephrectomy was done at a later operation.

The three patients who had resection and reanastomosis of the stenosed segment were all females with fibromuscular hyperplasia. Two of the three stenosed arteries were major segmental arteries in the kidneys that also had separate uninvolved segmental arteries to the lower pole of the kidney. In one patient, an end-to-side splenorenal arterial anastomosis was carried out in conjunction with renal endarterectomy.

In ten patients who had satisfactory renal artery pressure measurements at the time of surgery, the average gradient across the stenotic segment was 80 mm. of mercury. Although most of the dynamically significant stenotic lesions had gradients of this magnitude, one patient had a tight stenosis with renovascular hypertension and a recorded pressure gradient of only 22 mm. of mercury. Another patient with a pressure gradient of 60 mm. of mercury measured across an existing stenosis was subsequently demonstrated to have essential hypertension as a primary basis of her elevated blood pressure. The significance of the pressure gradient should therefore be interpreted with caution.

TABLE III

Arteriography

Lesion	Patients	Renovascular Hypertension
Unilateral stenosis . .	15	12
Unilateral occlusion .	3	3
Unilateral occlusion with contralateral stenosis	2	2
Bilateral stenosis	7	6
Total	27	23

TABLE IV

Differential Renal Function

Result	Patients	Renovascular Hypertension
Positive	9	9
Inconclusive	4	2
Technical failure	2	0

TABLE V

30 Operations in 27 Patients

Operation	Patients
Aortorenal shunt	10
Endarterectomy	5
Resection and reanastomosis	3
Splenorenal shunt	1
Primary nephrectomy	7
Secondary nephrectomy	2
Revision aortorenal shunt	1
Exploration and biopsy	1

Clinical Results

Reviewing these twenty-seven patients' data—including preoperative work-up, operative findings, and postoperative follow-up—we have grouped them as follows:

GROUP 1: **Renal artery stenosis with renovascular hypertension** (sixteen patients). According to operative results, these patients are categorized as (1) normotensive without additional therapy (twelve patients); (2) improved but requiring additional antihypertensive therapy (three patients); or (3) not improved (one patient, who had only renal biopsy at the time of operation and was considered inoperable because the renal artery stenosis was due to fibromuscular hyperplasia bilaterally and involved the secondary as well as the primary arterial branches).

GROUP 2: **Generalized arteriosclerosis with renal artery stenosis and renovascular hypertension** (seven patients). Of these, two are normotensive following surgery (without additional therapy), three have improved but require additional antihypertensive medication, and two have died as a result of their hypertensive disease. We emphasize that all patients in this group had extensive arteriosclerotic vascular disease, many with impaired renal function in addition to uncontrolled hypertension. Although the recorded results imply only partial success of surgical treatment, we are encouraged by the improvement subsequent to surgical reconstruction.

GROUP 3: **Essential hypertension with concomitant renal artery stenosis** (two patients). These patients' hypertension did not improve, following arterial reconstruction. Since experience with these patients emphasized the fact that renal artery stenosis may exist in patients with unrelated hypertension, detection of such patients is the main aim of the preoperative diagnostic work-up. Both of these patients had differential renal function studies; in one, the results were equivocal, in the other, the study was technically unsatisfactory. In retrospect, probably the equivocal laboratory findings should have ruled out surgical treatment, but with our present knowledge—and especially in the absence of specific tests for measuring renal pressor substance—inevitably, the decision for operation will occasionally be in error.

GROUP 4: **Generalized arteriosclerosis with renal artery stenosis, but without renovascular hypertension** (two patients). Neither patient experienced resolution of his hypertension following surgical reconstruction. Both were males (fifty-eight and sixty-three years of age) who had arteriographic evidence of generalized arteriosclerotic vascular disease. Both underwent surgery early in our experience, on the basis of laboratory findings that would not now be accepted as indicating surgical intervention.

Discussion

Diagnostically, two important challenges face the clinician in evaluating renovascular hypertension: (1) he must choose the necessary screening and special diagnostic procedures; (2) when renal artery stenosis is detected, he must determine whether or not it is responsible for the accompanying hypertension.

Our experiences indicate that both the I ^{131} Hippuran renogram and the intravenous urography using the rapid-sequence technique provide good screening information, and involve minimum morbidity. Reliable results require meticulous attention to preparation of the patient for diagnostic procedures, and close supervision of the technique whereby the procedures are carried out.

If the renogram and/or the urogram suggest the presence of renal artery

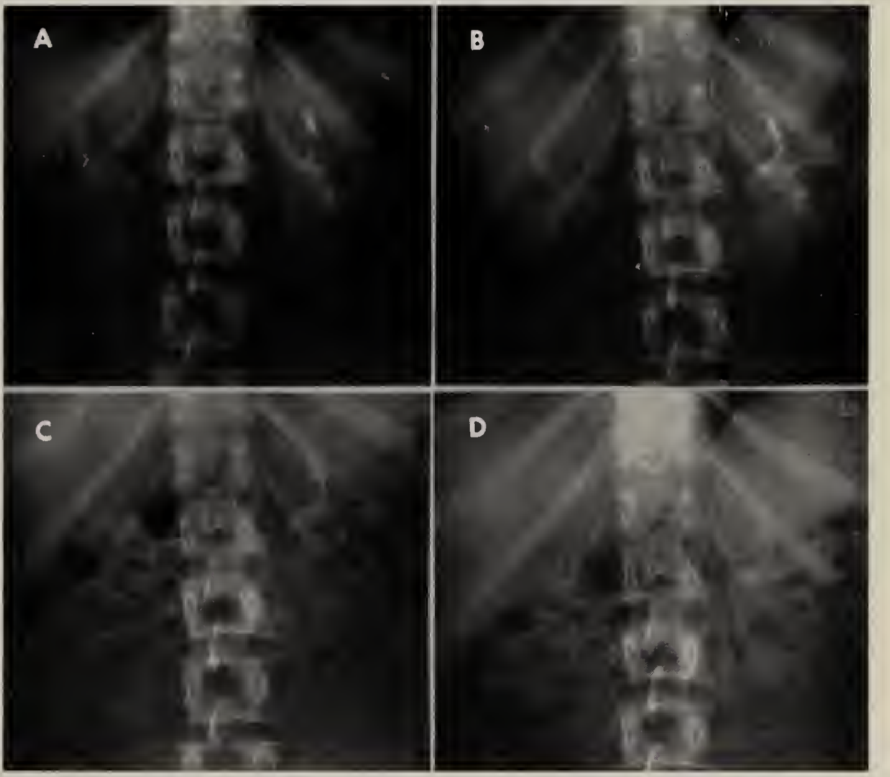

Fig. 2. Intravenous urogram (urea washout) of patient with unilateral left renal artery stenosis. Dye appears promptly in 3-minute film (A) at 8 minutes; (B), urea infusion begins; at 6 minutes (C) and at 12 minutes (D), post-urea dye persists in left renal pelvis, has disappeared on right.

stenosis, arteriography is mandatory, since it provides the most definitive diagnostic technique available. This study not only is confirmatory, it also provides important technical information.

Although some authors recommend the differential renal function study for diagnosing renal artery stenosis, we use it mainly to establish whether or not the stenotic lesion is responsible for the hypertension. Unfortunately, the study is technically difficult, and has a significant incidence of complications. Properly performed, however, the split renal function study is highly specific, and quite reliable in indicating the presence or absence of a dynamically significant arterial stenosis.

Recently we have used a technique of intravenous urography, as recommended by Schreiber et al,[1] combining rapid injection of a large volume of contrast medium with rapid filming, with a subsequent infusion of urea to produce an osmotic diuresis.

The physiologic basis for the diagnostic value of the urea washout is identical with that observed in the differential renal function test, where the disparity in urine-flow volume is a major criterion for renal artery stenosis. In the urea washout study, the osmotic diuretic increases urine-flow more rapidly, and to a greater degree, on the normal side, therefore leaving a higher density of radioopaque medium in the involved kidney. In a small series of cases, we found good correlation with renal arteriography and split renal functions studies (Fig. 2).

Kaplan and Silah[2] recently described an angiotensin infusion test for evaluating the hypertensive patient suspected of having renal artery stenosis. This procedure is attractive because it uses a principle different from that of diagnostic studies aimed at demonstrating alterations in renal blood-flow or renal function. This test, based on the patient's susceptibility to circulating pressor substance, involves intravenous infusion of a calculated amount of angiotensin over a stated time interval, with measurements of blood pressure response to the drug. A positive test is based on a patient's diminished responsiveness to the exogenous angiotensin, presumably occasioned by his being already accustomed to existing high levels of the pressor substance. Since our results with this test have varied, we look to further experiences to determine its reliability.

Vertes and co-workers[3, 4] advocate percutaneous renal needle biopsy in the preoperative work-up of patients with suspected renovascular hypertension. They believe there is a close correlation between the character and extent of disease in the intrarenal arteries and the patient's responsiveness to renal artery reconstruction. Additional experiences are needed here, too, in order to confirm or negate the usefulness and reliability of this study.

Surgically, various procedures including nephrectomy and revascularization can be used in successfully managing renovascular hypertension. It is generally agreed, however, that nephrectomy should not be done unless the kidney is irrevocably damaged or its revascularization is technically impossible. When candidates for surgery are properly selected, clinical results in the management of renovascular hypertension are very satisfactory.

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Thrombolytic Therapy

Development of human urokinase as a thrombolytic agent is under way in the laboratories of several pharmaceutical firms. The substance, a normal constituent of urine and a powerful activator of the naturally occurring human fibrinolytic enzyme system, has been extensively purified, and made available for clinical investigation.

Many features of purified urokinase make it preferable to existing thrombolytic agents: it is nonantigenic and nontoxic; its dosage is predictable on a body weight basis; and it has other biochemical features making it a more nearly ideal agent. Providing it for clinical use, however, has necessitated surmounting problems of production, standardization, and elimination of thromboplastic factors and possible viral contamination.

Although the thrombolytic properties of urokinase have been established in man, therapeutic values must still be established.

A group of investigators is exploring this area in order to determine whether or not use of urokinase will influence the natural course of pulmonary embolism. The group also plans a therapeutic trial in treating acute myocardial infarction.

GP Psychiatry

Effective psychiatric practice involves a spectrum ranging from intensive individual psychotherapy to wide-ranging public health measures. The optimal areas of activity for the general practitioner are:

1. Adequate acute intervention in psychiatric emergencies (including suicide), involving both appropriate treatment and referral.
2. Treatment of emotional problems associated with physical illness.
3. Treatment of psychosomatic illness, peptic ulcer, hypertension, colitis, bronchial asthma, etc.
4. Primary and secondary prevention of mental ill health—especially in the course of medical intervention with families, children, and adolescents. Benjamin Schneider, M.D., Danville, *World Medical Journal,* January, 1965.

The Cost of Alcoholism

Alcoholism costs the country an estimated billion dollars a year, according to Marvin A. Block, M.D., former chairman of the American Medical Association's Committee on Alcoholism.

Speaking at a seminar sponsored by the Pennsylvania Department of Health and the United Steel Workers in McKeesport in January, Dr. Block said that public agencies spend more than $20 million to aid families of problem drinkers, with private agencies expending a like amount.

Dr. Block added that the bill for the care of alcoholics in mental hospitals is $30 million, and that penal institutions spend another $25 million for the care of alcoholic prisoners.

"An even greater loss, too staggering to be even guessed at," he said, "lies in the broken homes, frustrated children, [and] unhappy parents, wives, and husbands."

- Births in the United States last year totaled 3,767,000, the smallest number since 1951.

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The human spine is not engineered for prolonged sitting at desks, pianos, typewriters and drafting boards. The stresses set up by the heavy, forward-tilted head and trunk, balanced precariously on an insufficient base, result in strain of the dorsal musculature, particularly at the low lumbar level.

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Precautions: 'Soma', like other central nervous system depressants, should be used with caution in patients with known propensity for taking excessive quantities of drugs and in patients with known sensitivity to compounds of similar chemical structure, e.g., meprobamate.

Side Effects: The only side effect reported with any frequency is sleepiness, usually on higher than recommended doses. An occasional patient may not tolerate carisoprodol because of an individual reaction, such as a sensation of weakness. Other rarely observed reactions have included dizziness, ataxia, tremor, agitation, irritability, headache, increase in eosinophil count, flushing of face, and gastrointestinal symptoms.

One instance each of pancytopenia and leukopenia, occurring when carisoprodol was administered with other drugs, has been reported, as has an instance of fixed drug eruption with carisoprodol and subsequent cross reaction to meprobamate. Rare allergic reactions, usually mild, have included one case each of anaphylactoid reaction with mild shock and angioneurotic edema with respiratory difficulty, both reversed with appropriate therapy. In cases of allergic or hypersensitivity reactions, carisoprodol should be discontinued and appropriate therapy initiated. Suicidal attempts may produce coma and/or mild shock and respiratory depression.

Dosage: Usual adult dose is one 350 mg. tablet three times daily and at bedtime.

Supplied: Two Strengths: 350 mg. white tablets and 250 mg. orange, two-piece capsules.

Before prescribing, consult package circular.

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Contraindications: Previous allergic or idiosyncratic reactions to meprobamate or meprobamate-containing drugs.

Precautions: Careful supervision of dose and amounts prescribed is advised. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction; withdraw gradually after use for weeks or months at excessive dosage. Abrupt withdrawal may precipitate recurrence of preexisting symptoms, or withdrawal reactions including, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, the dose should be reduced and operation of motor vehicles or machinery or other activity requiring alertness should be avoided if these symptoms are present. Effects of excessive alcohol may possibly be increased by meprobamate. Grand mal seizures may be precipitated in persons suffering from both grand and petit mal. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side effects: Drowsiness may occur and, rarely, ataxia, usually controlled by decreasing the dose. Allergic or idiosyncratic reactions are rare, generally developing after one to four doses. Mild reactions are characterized by an urticarial or erythematous, maculopapular rash. Acute nonthrombocytopenic purpura with peripheral edema and fever, transient leukopenia, and a single case of fatal bullous dermatitis after administration of meprobamate and prednisolone have been reported. More severe and very rare cases of hypersensitivity may produce fever, chills, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, anaphylaxis, stomatitis and proctitis. Treatment should be symptomatic in such cases, and the drug should not be reinstituted. Isolated cases of agranulocytosis, thrombocytopenic purpura, and a single fatal instance of aplastic anemia have been reported, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity has been reported, usually after excessive meprobamate dosage. Suicidal attempts may produce lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

Usual adult dosage: One or two 400 mg. tablets three times daily. Doses above 2400 mg. daily are not recommended.

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Correctly used, with due attention to repeat courses of treatment for resistant, deep-seated invasion and to the presumption of reinfection from male consorts, Flagyl has repeatedly produced a cure rate of up to 100 per cent in large series of patients.

Nothing cures trichomoniasis like Flagyl.

Dosage and Administration

In *women:* one 250-mg. oral tablet t.i.d. for ten days. A vaginal insert of 500 mg. is available for local therapy when desired. When the inserts are used one vaginal insert should be placed high in the vaginal vault each day for ten days, and concurrently two oral tablets should be taken daily.

In *men:* in whom trichomonads have been demonstrated, one 250-mg. oral tablet b.i.d. for ten days.

Contraindications

Pregnancy; disease of the central nervous system; evidence or history of blood dyscrasia.

Precautions and Side Effects

Complete blood cell counts should be made before and after therapy, especially if a second course is necessary.

Infrequent and minor side effects include: nausea, unpleasant taste, furry tongue, headache, darkened urine, diarrhea, dizziness, dryness of mouth or vagina, skin rash, dysuria, depression, insomnia, edema. Elimination of trichomonads may aggravate moniliasis.

Dosage Forms

Oral–250-mg. tablets/Vaginal–500-mg. inserts

SEARLE

Research in the Service of Medicine

Causes of the 'Common Cold'

Many newly recognized viruses have in recent years been implicated as etiologic agents of acute undifferentiated upper respiratory tract illnesses in adults. Of these, the rhioviruses apparently are most commonly isolated in adults ill with the "common cold."

Some 60 antigenically distinct serotypes have been recognized, associated with 10-30 percent of these mild illnesses in adults. Parainfluenza viruses and respiratory syncytial virus are associated with a smaller proportion, although in children they are important causes of bronchiolitis, croup, and pneumonia. Adenoviruses and Coxsackievirus A-21 account for a minor amount of civilian adult respiratory tract infection.

Since information is limited as to the prevalence of individual rhinovirus serotypes and their relationship to disease, we investigated the relative frequency of rhinovirus infection and the pattern of occurrence of individual rhinovirus serotypes among civilian adults with minor respiratory tract illnesses.

The study population was comprised of 193 persons with 221 illnesses—employees of the National Institutes of Health. Specimens were obtained within six days of onset of illness. Virus isolation from the nasopharyngeal or throat-swab specimens of all patients was attempted. Sera, obtained during acute and convalescent phases of illness, were tested by complement fixation.

Rhinoviruses Common

In 74 (34 percent) of the 221 illnesses, evidence of virus infection was detected by virus isolation or by serologic response, or by both. Rhinoviruses, recovered more commonly than any other group of viruses, were isolated during most months of the study. Seventeen distinct serotypes were identified from among the 40 rhinoviruses recovered, no one serotype predominating. Nine strains were unidentifiable. All patients from whom an identified rhinovirus was recovered were tested for homologous neutralizing antibody with the prototype strain of that serotype. In these tests, 22 (55 percent) of 40 patients from whom a rhinovirus was recovered had an increase fourfold or greater in homologous neutralizing antibody.

The rate of recovery of other viruses varied from 2 to 5 percent. A single sharp outbreak of influenza A virus infection occurred in January and February, 1963, but except for one instance, this virus was not again detected.

Parainfluenza virus types 1 and 3 infections were detected in 4 percent and in 2 percent of illnesses, respectively. Most of the parainfluenza 1 infections were detected from November, 1962, to January, 1963; one additional patient had parainfluenza infection in June, 1964. Parainfluenza 3 infections occurred during three different periods of the study.

Herpesvirus was recovered from 3 percent of the patients tested, a sporadic pattern of occurrence being evident. Infections due to respiratory syncytial virus, parainfluenza virus type 2, adenovirus, or Coxsackievirus A-21 were uncommon.

Only three patients evidenced infection with two or more agents. Infection with influenza type B or with *Mycoplasma pneumoniae* was not detected.

Fever Rare

Temperature elevation above 99° F. occurred in only 15 (7 percent) of the patients during the course of illness. Except in the case of influenza A virus, the rate of virus recovery from patients with fever and those without was similar. Influenza A virus was recovered significantly more often from febrile persons. Recovery rates for a number of viruses did not vary significantly during the first three to five days of illness.

Influenza A2 virus was epidemic in the United States during the winter of 1963, and except for one case, all infections with this agent in our study population were detected during January and February of that year. The overall rate of infection with influenza A2 virus was only 5 percent; during January and February, 1963, however, 11 (44 percent) of 25 patients tested evidenced infection with this virus. Influenza A infection occurred in all age groups.

Primary infection with the parainfluenza viruses occurs in early childhood and is associated with moderate to severe respiratory tract illness, usually accompanied by fever. Almost all adults possess neutralizing antibody for parainfluenza virus types 1 and 3.

Parainfluenza viruses have been recovered from adults with naturally occurring upper respiratory tract illness. The significance of naturally occurring reinfection is not clear, since comparative data from controlled epidemiologic studies, which would substantiate an etiologic role of these viruses in adult illness, are not available. The development of the disease in experimentally infected volunteers who possess neutralizing antibody, however, suggests that these agents can produce illness during reinfection. In our study, parainfluenza virus types 1 and 3 were recovered from 6 percent of adults with the upper respiratory tract illness. Probably we have underestimated the potential role of the parainfluenza viruses in these conditions.

Kindred Agents

Respiratory syncytial virus resembles parainfluenza viruses in that primary infection occurs in early childhood, associated with moderate to severe respiratory tract illness, often with fever. All or almost all adults possess neutralizing antibody for respiratory syncytial virus; we found evidence of this virus in only 2 of the 221 illnesses.

Not clear is the relation of herpesvirus infection to naturally occurring upper respiratory tract illness in adults. It has been suggested that it is an important etiologic agent of acute pharyngitis in adults.

One patient from whom we recovered herpesvirus during two illnesses, one month apart, had an antibody rise following the second illness. This patient lacked complement fixation antibody at the onset of the second illness. These findings suggest that serologic response may not be an adequate measure of primary infection; they indicate the difficulty of assessing the role of herpesvirus in naturally occurring upper respiratory tract illness in adults.

• Maurice A. Mufson, M.D., Patricia A. Webb, M.D., Hilda Kennedy, Virginia Gill, and Robert M. Chanock, M.D., in *The Journal of the American Medical Association*, January 3, 1966.

Sensitivity to Digitalis

Toxic reactions – sometimes fatal – can follow the use of a 'popular, drug. Four case reports illustrate potential risks with digitalis

ROBERT L. HALL, M.D.

State College, Pennsylvania

The principles guiding the clinical use of digitalis have been empirical since Withering made his conclusion. The cardiac glycosides probably produce more toxic manifestations in hospital patients than do any other drugs. Unfortunately, this drug intoxication may persist for days or months, eventually leading to death, with the attending physician unaware of the patient's primary problem. With the popular dogmatic dosages and increasing use of the purified crystalline preparations, digitalis has become a significant factor in cardiac deaths; its indiscriminate use is to be deplored.

■ *Dr. Hall is on Centre County Hospital's medical staff, and serves as medical consultant. Chairman of the executive board of the Centre County Heart Association, he is also a staff member of that organization's diagnostic clinic. He is a Diplomate of the Boards in Internal Medicine, and an Associate of the American College of Physicians. State College is his place of residence.*

The cardiac glycosides are used in three clinical settings in medical practice, to alter the excitability, conductivity, and contractility of the heart muscle (the positive ionotropic action): (1) to control and prevent paroxysmal ectopic arrhythmias of atrial and nodal origin; (2) to decrease atrioventricular conduction in atrial fibrillation or flutter; and (3) to increase ventricular contractility of the failing heart.

Few drugs in current use have so narrow a margin of safety. At the time of full digitalization, 65 percent of the potentially toxic dose has been administered. Once toxicity has occurred, the patient has received approximately 40 percent of the minimum lethal dose. The therapeutic toxic ratio is further reduced by old age, advanced heart disease, and the presence of certain electrolyte derangements. In Dubnow and Burchell's series,[1] one-sixth of the patients with digitalis intoxication had no underlying heart disease.

Case Reports

Case 1. A sixty-year-old female with aortic valvular rheumatic disease was hospitalized because of cardiac arrhythmia, 20-pound weight-loss, anorexia, pain in the stomach, vomiting, and extreme weakness of four months' duration. She had been hospitalized in another hospital for six weeks prior to transfer to the Centre County Hospital, Bellefonte. Complete gastrointestinal x-rays had been normal. On admission to the hospital she was critically ill, cachectic, and extremely weak. There was cardiomegaly with evidence of bilateral heart failure. The cardiac rate was 60 beats per minute; it was irregular with a pulse deficit, and with variable intensity of the first sound. The point of maximum impulse was extended to the anterior axillary line in the fifth interspace. A grade III harsh systolic murmur was audible at the base, with transmission into the right cervical area. The electrocardiogram confirmed the presence of atrial fibrillation with a ventricular rate of 52. Initial laboratory studies showed serum chlorides 102 mEq./L, serum sodium 136 mEq./L, serum potassium 4.2 mEq./L, CO_2 24 mEq./L.

The patient had been taking digitoxin .2 mg., and diuril .5 gm. daily for the preceding five months. The digitoxin dosage was stopped on admission to the hospital. The nausea, vomiting, and stomach pain ceased 48 hours after admission. The electrocardiogram reverted to a sinus rhythm four days following admission and during a 12-day period the patient diuresed with a weight-loss of 12 pounds. Thus, with cessation of digitalis therapy, all abdominal symptoms subsided, the cardiac rhythm reverted to a sinus rhythm, and the left and right heart failure disappeared. The patient has been followed in my office for the past eight months and has remained completely asymptomatic without need for glycosides or diuretics.

Case 2. A seventy-five-year-old male with rheumatic heart disease, mitral insufficiency, atrial fibrillation, and congestive heart failure was hospitalized because of right pleural effusion, dyspnea, and stomach pain. At home, he had been on digoxin .5 mgm. daily and chlorothiazide, but had developed dyspnea and restlessness three weeks prior to admission. On admission, the patient was moderately ill with right pleural effusion, cardiomegaly, and increasing heart failure. The cardiac rate was 72; it was irregular, with a pulse deficit. Point of maximal impulse was in the sixth interspace, and palpable at the anterior axillary line. The electrocardiogram confirmed the presence of atrial fibrillation, left ventricular hypertrophy, and digitalis effect. Digoxin .5 mgm. daily, renese 2 mgm. once daily, and dyrrinium 100 mgm. q.i.d., were prescribed for diuresis; blood urea nitrogen (BUN) and serum electrolytes were normal on admission, except for a serum potassium of 3.9 mEq./L.

Effects

Seven days after admission, a repeat chest x-ray showed a complete clearing of right pleural effusion. The patient's nausea and gastric burning had increased markedly however, although the upper gastrointestinal series and cholecystogram were normal. Anorexia progressed to vomiting and inability to eat, and electrolyte studies showed serum chloride 100 mEq/L., serum sodium 142 mEq/L., serum potassium 6.3 mEq/L., CO_2 18 mEq/L., BUN 85 mgm. percent. The digoxin and diuretics were stopped immediately; over the next 72 hours, the patient's condition improved remarkably. The azotemia decreased rapidly, the patient's appetite returned, and there was a decrease in the burning and pain in his stomach. Because of an apical rate of over 100 each day, and the atrial fibrillation, some type of digitalis therapy was deemed necessary; digitalis .1 gm. daily for four days was prescribed, and the anorexia, nausea, vomiting, and azotemia rapidly returned. The digitalis was immediately stopped and again the patient recovered. Finally, after the BUN, hematocrit, and serum electrolytes remained stable and unaltered, gitalin .25 mg. once daily was attempted to control the apical rate; with this small dose of glycoside the patient was discharged from the hospital. He has progressed nicely at home for the past three months.

Case 3. A seventy-year-old female with pulmonary emphysema and insufficiency was hospitalized because of a cardiac arrhythmia, and diarrhea of five days' duration. Empirically, digitalis .1 gm. once daily had been prescribed six weeks previously. Anorexia and nausea developed during the two weeks preceding admission. Five days prior to admission, the patient noted the onset of a rapid heart rate, and diarrhea. On admission the patient was dyspneic with a cardiac rate of 120 and an irregular rhythm. The PMI was within the midclavicular line. The electrocardiogram showed a sinus tachycardia with frequent premature ventricular beats and occasional small runs of nodal rhythm. The P waves were tall and wide in lead two and lead three. Digitalis administration was stopped immediately and Kaon tabs. 2 t.i.d.p.c. prescribed for the digitalis intoxication. Forty-eight hours later the diarrhea had subsided and the electrocardiogram reverted to a sinus tachycardia with a regular rhythm. The patient recovered rapidly and was discharged to home with no evident requirement for the glycosides.

Case 4. An eighty-four-year-old male with arteriosclerotic heart disease, Class 2, and angina pectoris, was examined in the office on January 18, 1965, with a primary complaint of a "fluttering heart." The cardiac rate was 76 and irregular. The chest x-ray was normal, with no evidence of left ventricular failure. The electrocardiogram disclosed a sinus rhythm with frequent premature atrial contractions, and left ventricular ischemia. Digitalis .1 gm. daily, peritrate 10 mg. q.i.d., and nitroglycerine gr. 1/150 prn. were prescribed. When the patient was reexamined six weeks later, a regular rhythm was noted, with no evidence of premature contractions. When he returned seven weeks later, he was examined by two ophthalmologists because of "dazzled vision." The eye examinations were negative for pathology, but the patient complained bitterly of frequent attacks of "light flashes" of the eyes and could only explain the symptomatology as a "dazzling" of his vision. Because the digitalis had improved his tolerance for walking and exertion, I reduced the digitalis to .1 gm. every third day. The patient has been examined in the office monthly since then; the "dazzling eye flashes" have disappeared completely.

Manifestations of Digitalis Intoxication

The important manifestations of digitalis intoxication may be separated into various systems.

(1) The gastrointestinal manifestations still remain the most frequently recognized symptoms. Approximately three-fourths of patients complain of anorexia, nausea, vomiting, and diarrhea.

(2) The neurologic symptoms are often overlooked. Visual symptoms are the most common and include blurring, color vision (with objects appearing green and yellow), eye flashes or dazzled vision, snowstorm vision, scotoma, or diplopia.[2] Other neurologic symptoms include headache, convulsions, psychosis, and neuralgic complaints (particularly involving the upper extremities and the distribution of the trigeminal nerve).

(3) The cardiac manifestations of digitalis toxicity, which involve arrhythmias or conduction disturbances, are noted in approximately one-third of the patients. Church and associates studied the earliest manifestations of toxicity with digoxin, gitalin, digitoxin, and acetylstrophanthidin and found no difference in the patterns of intoxication produced by these agents.[3] Interestingly, no significant differences in duration of toxic signs were produced by the three oral preparations.

Ventricular premature beats are still the most common arrhythmia observed. The extrasystole, Wenkebach phenomenon, atrioventricular dissociation, and nodal rhythm accounts for 75-80 percent of all electrocardiographic abnormalities in recent years, one explanation being that the digitalis vagal effect apparently controls the atria. The frequency of paroxysmal atrial tachycardia with block was noted in only 5 percent of Dubnow and Burchell's series.[1] Other cardiotoxic signs include ectopic beats in mitral stenosis and atrial fibrillation. In the latter, a marked acceleration of rate, a regular response of the ventricles, or a Wenkebach phenomenon indicates that the patient is probably over-digitalized. Incipient digitalis intoxication may be demonstrated by development of bigeminy following carotid sinus stimulation. Other cardiotoxic arrhythmias include paroxysmal atrial tachycardia, atrial flutter, and atrial fibrillation, as well as ventricular tachycardia and ventricular fibrillation.

Gynecomastia, acute hemorrhage, and necrosis of the bowel have been implicated with digitalis toxicity. The necrosis of the bowel has occurred with severe congestive heart failure, and the role of digitalis therapy is uncertain. Finally, it is important to note that many of the arrhythmias and other signs of digitalis toxicity may occur in patients when doses of digitalis are employed within the accepted dogmatic therapeutic range.

Important Factors

The most important factor is the state of the myocardium. In the absence of heart disease large doses may be given without ill effect. Bickel reported a suicide attempt by a thirty-six-year-old female without heart disease who consumed a dose of 50 mgm. of digitoxin. After eleven days of arrhythmias, nausea, vomiting, somnolence, and hypotension, the patient made an uneventful recovery.[4] As heart disease increases, the margin between therapeutic and toxic doses progressively decreases. In many cases no beneficial effects can be obtained without toxic effects. In the terminal stages of decompensation, toxic signs may precede therapeutic action, making the profitable use of digitalis impossible. Lown feels that an overdose of digitalis in the presence of advanced heart disease may induce permanent biochemical damage to the myocardium. Digitalis in overdose causes loss of potassium from the heart muscle. Such loss may not be restored when the myocardium is continuously subjected to anoxia, even when the agent initiating the depletion is withdrawn. An alternate explanation is that in severe cardiac decompensation, failure of digitalis detoxification by the liver prolongs its period of action, which in turn maintains myocardial potassium depletion.[5]

Another factor in determining the myocardial threshold for digitalis is the state of the body electrolytes. While calcium plays a significant role in modifying the action of digitalis, in clinical practice the key ion is potassium. With the depletion of potassium, whether produced by diuretics, extreme illness, or hemodialysis, ingestion of even small doses of digitalis may result in advanced intoxication. The tendency to lose potassium after taking various diuretics may be enhanced by prolonged and rigid restriction of salt intake. When sodium is in short supply the renal tubular cells secrete potassium and hydrogen ions in exchange for sodium ions in the tubular urine. The myocardial threshold to digitalis may also be reduced by a shift of potassium from the extracellular to the intracellular compartment without any loss of this cation from the body. Thus digitalis intoxication may follow the rapid lowering of the serum potassium by the administration of sodium chloride, sodium bicarbonate, glucose, or insulin.

Increased sensitivity to digitalis may be encountered in patients with acute myocardial infarction, acute cor pulmonale, rheumatic carditis, or during calcium administration, adrenal steroid therapy, acute renal shutdown; it may also occur in the terminal stages of uremia, following large infusions of glucose, in severe diabetic coma, and in the very aged.

Summary

From the foregoing, it is evident that the two most important factors determining the patient's responsiveness to digitalis are the state of the heart muscle and the electrolyte balance of the body.[5] These two factors may be the common underlying bases for sensitivity as well as resistance to digitalis under all circumstances. With increasing severity of cardiac decompensation, especially when this is the result of heart muscle insufficiency, smaller doses of digitalis will produce intoxication; and when body potassium is depleted, enhanced sensitivity to digitalis results.

The prescribing of empiric doses of digitalis is not to be taken lightly by the physician. I have presented four case reports of digitalis intoxication occurring with average maintenance digitalis dosages. Digitalization requires the administration of repeated small doses of the glycosides. The proper administration of the drug requires the physician's titration to each individual, and his bearing in mind the important factors as outlined in this paper.

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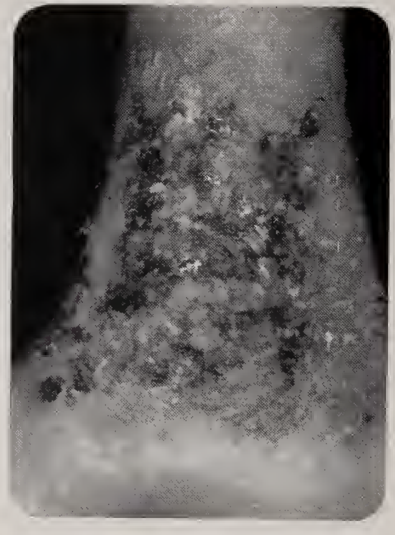

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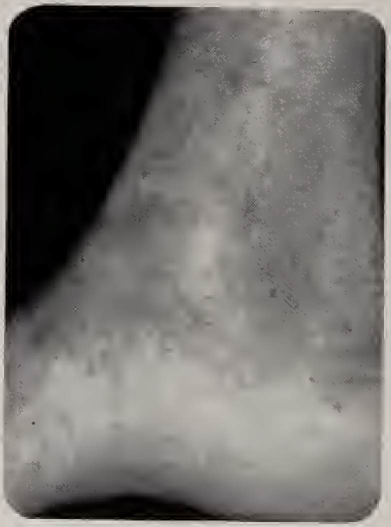

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Peptic Ulcers and Hyperparathyroidism

Reviewing pertinent literature and a case report, the authors ask: Should one screen all peptic ulcer patients for hyperparathyroidism?

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A number of reports associate peptic ulcer with hyperparathyroidism.[7, 8, 9, 12, 14, 15, 16, 19] The question remains open, however, as to whether or not all patients with peptic ulcer should be screened for hyperfunction of the parathyroids. Shrifter[17] reports that the literature gives no evidence of a direct cause-and-effect relationship between hyperparathyroidism and peptic ulcer, in spite of the somewhat increased coincidence. Black and Zimmer [2] claim that no positive results were obtained when all patients studied who had functional gastrointestinal complaints were screened. Ellison [3] arrived at a similar conclusion. On the other hand, studies of calcium and phosphorus metabolism in peptic ulcer patients have demonstrated an increased urinary clearance of both, and a decreased renal tubular resorption of phosphorus.[6, 10] Screening three hundred ulcer patients, Frame found four new cases.[5] In only a few cases, however, is peptic ulcer the *lone* symptom of hyperparathyroidism. [11, 15, 18, 20]

Case Report

A thirty-three-year-old Negro woman was first seen in the emergency room of St. Vincent Hospital, Erie, on February 2, 1964, because of generalized abdominal pains. (Earlier, she had taken a moderate amount of an alcoholic beverage.) She was treated symptomatically and released. She returned several times, however, and was again admitted on March 16, 1964. She reported postprandial epigastric pain, "sickness all over," yellow emesis, one episode of melena, and the fact that she could not "stand" milk. Subsequent to her previous admission, she had avoided alcohol intake. She had no bowel disturbances, no polyuria, no "tired feeling," and no weightloss, but she reported having some headache and dizziness. Examination revealed nothing remarkable except tenderness in the right upper quadrant, and hyperactive bowel sounds. There was no arthritic pain. Gallbladder study was normal, and on March 19, an upper gastrointestinal (UGI) series revealed fluid in the fasting stomach, and a tender, deformed duodenal bulb with a pseudodiverticulum at its base. A true diverticulum was discovered in the second portion of the duodenum.

An incidental finding was malrotation of the cecum. Laboratory studies were unremarkable: Alkaline phosphatase, 7 King Armstrong (KA) units (normal, 7-15); calcium and phosphorus were not checked; blood-free stools; thyroid binding iodine, 0.84 (hyperthyroid value below 0.86); admission cholesterol, 123 mg. percent —one week later, 158 mg. percent.

Clinically, there was no sign of hyperthyroidism. The patient received ulcer therapy and was discharged. Clinic follow-up revealed dramatic improvement, albeit with recurrences characterized by absolute food intolerance.

In July, 1964, UGI series again revealed an irritable, deformed duodenal bulb, gastric retention of 50 percent at three hours, but no definite ulcer. On February 3, 1965, the patient returned to the emergency room and was found to have a mass in the left breast. Although the mass had all the characteristics of a benign tumor, the patient was prepared for surgery. A mammogram confirmed the benign diagnosis. Bone survey and chest x-ray were both negative. Complete blood count revealed a lymphocytosis of 46 percent, and a hematocrit of 34. Blood urea nitrogen (BUN) was 30, urinalysis, normal. Total proteins were 8.9 gms. percent, with a reverse albumin and globulin (A/G) ratio of 4.5-4.4. Of particular interest was the calcium —5.7 mEq./L. Phosphorus was 1.8 mEq./L, alkaline phosphatase, 8 KA units. The possibility of multiple myeloma was entertained, but a bone marrow showed normoblastic hyperplasia. Other protein controls failed to show any alteration. The BUN fell to normal. The mass in the breast disappeared spontaneously. A UGI series taken as control showed no new findings, but did reveal hypermotility of the bowel, of unknown cause. The association of temporarily-elevated BUN led us to conclude that the patient had bled moderately from what we considered to be a duodenal ulcer.

On March 24, 1965, she was readmitted because of periumbilical pain of four days' duration, accompanied by projectile vomitus of yellow material. She had food intolerance, was tired, and had had one episode of melena a week before admission. There was tenderness around the umbilicus. Despite the projectile nature of the vomitus, the UGI revealed no obstruction, and the duodenal bulb was not altered.

The admission calcium was 4.8 mEq./L, phosphorus, 1.7 mEq./L, alkaline phosphatase, 6 KA units. Occult blood was present in the stool. All other studies were normal, including the BUN and the A/G ratio, but the lymphocytosis was 40 percent. The gastric acidity was checked: the patient was secreting only 18 mEq. of total hydrochloric acid in a 12-hour night specimen, which surprising fact

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led us to make a complete review of the case.

In view of the single elevated report of calcium drawn in the clinic, we decided to investigate the patient more extensively for hyperparathyroidism. X-rays of the hands, and of the dental lamina dura, were normal. Intravenous pyelogram (IVP) and phenolsulfonphtalein (PSP) were reported to be normal. The patient complained of toothache, and a dentist found caries. The calcium ranged from 5.7 to 5.9 mEq./L, the phosphorus, from 1.6 to 1.9. One 24-hour specimen showed calciuria of 400 mg. (normal, 100-300 mg.). A careful examination of the neck failed to show any mass. Although only 10 percent of parathyroid tumors are palpable, we decided insufficient grounds existed for an exploration of the neck, and the patient was discharged.

A month later, she was readmitted with hematemesis and epigastralgia. Periumbilical tenderness was present. A pea-sized nodule was present at the level of the left lower pole of the thyroid, in the tracheoesophageal groove. The tender mass was not movable with deglutition. The laboratory confirmed the clinical diagnosis of GI bleeding, but again, x-ray failed to demonstrate any lesion. The IVP, and the roentgenograms of the hand, were normal. Calcium ranged from 4.1 to 5.8 mEq./L, phosphorus, from 1.2 to 1.6. Twice in 24 hours, calciuria was reported to be 200 mg., and once, 600 mg. Thyroid function was normal. The Lee-White coagulation time was increased to 11′. One consultant deemed the patient's historical, clinical, and laboratory evidences of hyperfunction of the parathyroid insufficient to justify the exploration. Others believed the nodule in the neck to be a lymph node. We therefore risked discharging the patient on a low-calcium diet, discontinuing her ulcer therapy to exclude a milk-alkali syndrome.

Calcium, determined five times monthly, ranged from 5.9 mEq./L at first to only 5.2 mEq./L thirty days later. Phosphorus ranged from 1.6 to 2.4. We decided to explore the neck.

Tumor Found

An encapsulated, fatty tumor, 3 cm. x 1 cm.— found at the left lower pole of the thyroid and separated from it —was based on a small branch of the inferior thyroid artery. It was resected *in toto*. Within it there was a small, firm, tannish-gray nodule 2 cm. in greatest dimension. On frozen section, this was reported as parathyroid tissue. Both sides of the neck were explored, and the parathyroid was found to be normal. The upper mediastinum contained no palpable nodules. The patient readily recuperated from her surgery.

The pathological report delineated an adenoma composed of chief cells showing considerable variation in size and structure. Cellular and nuclear enlargement and occasional multiple nuclei were present, as was a stroma of delicate fibrous tissue, devoid of fat. Elsewhere, parathyroid was normal. A small lymph node was indurated in the fatty tissue. The day after surgery, the calcium was found to be 4.4 mEq./L, the phosphorus, 2.3 mEq./L—values which subsequently have remained normal. The patient gained 7 pounds in a month, had a degree of vigor she had not known prior to surgery, and no longer had abdominal cramps.

Diagnostic Aids

To emphasize factors to be checked for parathyroid function, in patients whose solitary complaint is peptic ulcer: history, physical findings, and laboratory studies will lead to the diagnosis if hyperparathyroidism is accompanied by manifestations other than the gastrointestinal complaints. St. Goar[17] states that all children and young women with peptic diathesis should be evaluated. Another commonly mentioned indication is resistance to medical and surgical therapy. Projectile vomitus without mechanical obstruction is also an indication. Aggravation of symptoms, on a milk-alkali diet, has been noticed.[20] Particularly interesting is the effect of parahormone on the gastric secretion. Allen,[1] attempting to reproduce the pathological conditions by injecting small doses of the hormone (within a certain period of time), demonstrated a decrease in the volume and acidity of the gastric secretion. The histologic picture was one of atrophic gastritis. Ostrow[14] came to the same conclusion clinically, noting that when a patient with peptic ulcers also has hyperparathyroidism, he has normal or diminished gastric activity.

This was our starting point. Why the condition leads to ulcer is unknown. Several theories have been advanced, such as: that regarding the deposit of calcium in the gastric mucosa; the genetic theory; and the theory of gastric stasis through the hypercalcemia.[19] Engel showed that the hormone could liquify the gastric mucus, possibly destroying the gastric ground substance.[17] Webb has shown that not all ulcers will disappear after an underlying pathology is corrected.[19]

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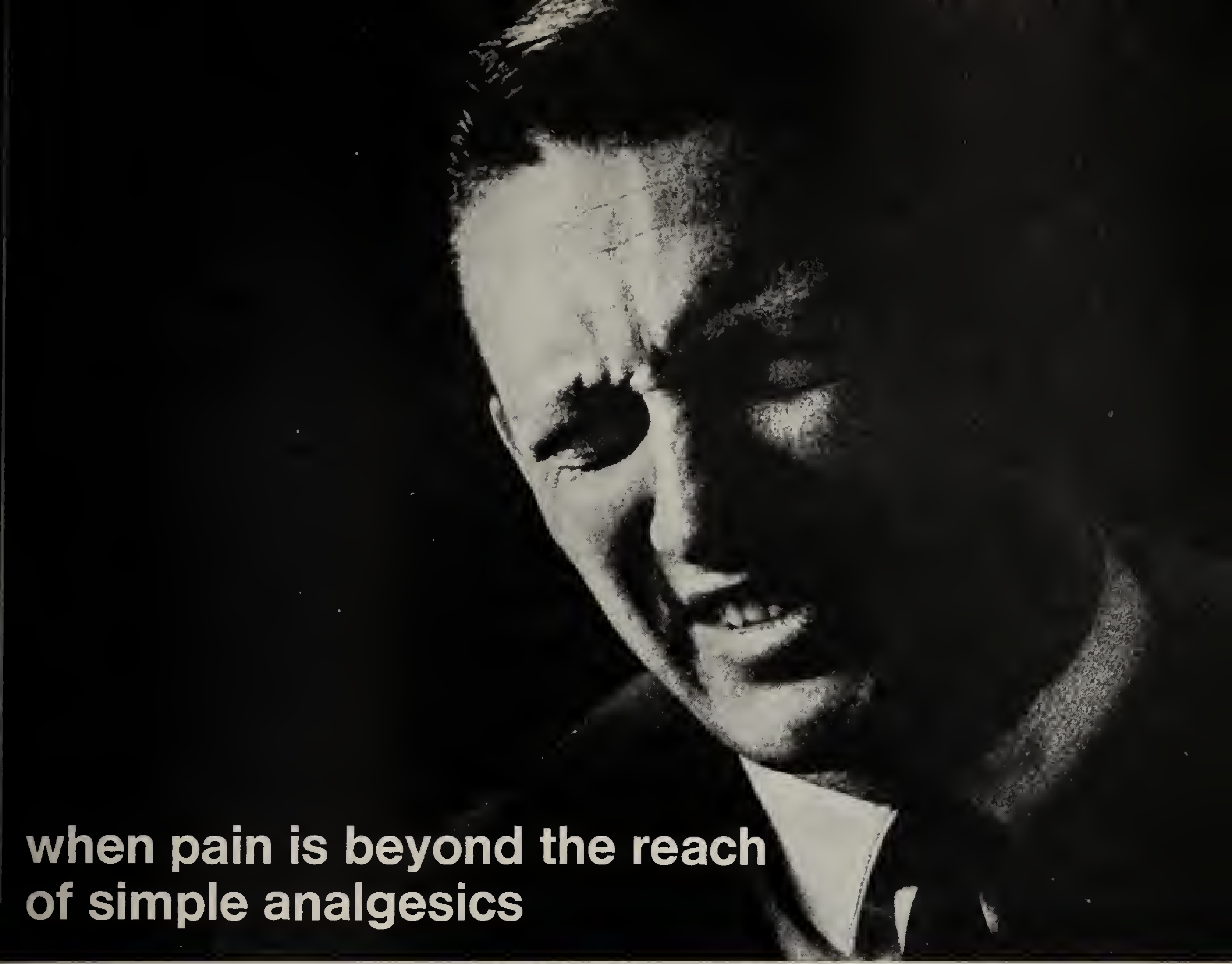

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To a fastidious woman, few conditions are more distressing than the burning, itching, and discharge associated with vaginitis. Lang and Woldorf[1] have stressed the importance of thorough investigation of the patient and her disease *before* treatment is begun, if complications are to be avoided and satisfactory relief obtained.

Vaginitis commonly falls into these four categories: (1) trichomonal; (2) monilial; (3) nonspecific or bacterial; and (4) atrophic, with or without superimposed infection.

Trichomoniasis is most common in women in active sexual life. It is characterized by a greenish-yellow, often bubbly or frothy discharge, bright red inflammatory reaction in the tissues, and intense itching and burning. It is recognized by a hanging drop preparation of the discharge in normal saline suspension. The saline solution intensifies the activity of the motile organisms and facilitates their differentiation from leukocytes and inflammatory cells.

Moniliasis may occur at any time in life. The discharge is usually of whitish, curdy character, with small areas of vaginal ulceration at the site of the whitish colonies. It is recognized with a hanging drop preparation in 10 percent sodium hydroxide solution. The epithelial and purulent cells are dissolved, leaving the spores and hyphae of the monilia intact. Monilial vaginitis, frequently seen in diabetic patients, often follows antibiotic therapy.

Nonspecific or bacterial vaginitis is best diagnosed by appropriate laboratory studies (hanging drop preparations, smears, cultures, etc.). The involved vaginal mucosa varies from dull red to bright red, depending on the severity of the causative organism and the resistance of the host. It may complicate either trichomonal or monilial infections, due to lowering of the patient's local resistance, and may accompany debilitating diseases not related to the genital tract.

Atrophic vaginitis is recognized by the thin, watery discharge, a friable, easily-bleeding vaginal mucosa with absence of rugae, and poor cell maturation in the saline suspension of the discharge, reflecting the deficiency of estrogen.

One must remember that while cell maturation is a function of the level of estrogenic activity of the ovary, it is also a measure of the severity of the inflammation which is causing denudation of the superficial layers of the mucosa. In this study, young patients whose vaginitis was caused by *Trichomonas vaginalis, Streptococcus faecalis,* or *Pseudomonas aeruginosa* (alone or in combination), showed large numbers of inner basal cells in their cell maturation counts.

The present study evaluates clinically a vaginal cream containing 0.01 percent dienestrol, 15 percent sulfanilamide, 0.2 percent aminacrine hydrochloride, and 2.0 percent allantoin, in the treatment of atrophic vaginitis (with or without superimposed infection). The cream has a water-miscible base buffered to approximately pH 4.5 with lactic acid.

Sixty-one postmenopausal women with a chief complaint of irritating vaginal discharge and dyspareunia, and twenty-eight premenopausal patients with vaginitis, were treated with the cream—the latter group using a cream *without* dienestrol.

Patients were classified as to age. Papanicolaou smears were taken on all patients with intact cervices. Smears and/or cultures and hanging drop preparations for trichomonads and monilia were made, and cell maturation counts were done. Before the cream was used, a careful history was taken to elicit previous sulfonamide sensitivity.

One applicatorful (7.5 gm.) was instilled into the vagina morning and

TABLE I

Analysis of Data

Premenopausal Group		Postmenopausal Group
28	← Number of Patients →	61
19—51	Age Range	34—76
(34.9)	Average Age	(57.4)
Active menstrual life 28		Postmenopausal etiology Spontaneous . . 45 Surgical . . . . . . 13 Radiation 3
28/28	Smears and/or cultures (# determinations/total)	50/61

■ *Dr. Nugent is associated with the department of obstetrics and gynecology at the Reading Hospital, and resides in West Reading. Dr. Myers is now stationed at K.I. Sawyer Air Force Base, Michigan.*

TABLE II

Evaluation of 89 Patients

Etiology	Pre-menopausal Group	Post-menopausal Group
Bacterial	14	26
Trichomonal ..	9	6
Monilial	5	9
Estrogen Deficiency ..	0	20
TOTAL	28	61

night for the first week or slightly longer, until the acute symptoms subsided. Instillations were then reduced to one applicatorful nightly, until two to four 4-ounce tubes had been used. All patients were reevaluated one and two months after treatment was completed.

TABLE III

Results of Cultures

Organism	Premenopausal Group	Postmenopausal Group
*Hemophilus vaginalis	2	5
*Candida (monilia)	5	9
Streptococcus		
alpha hemolytic	7	6
*beta hemolytic	4	2
*gamma hemolytic	0	2
*faecalis	4	11
Staphylococcus		
aureus		
coag. negative	5	5
*coag. positive	0	1
albus	2	3
*Escherichia coli	12	7
*Escherichia intermedium	1	7
*Pseudomonas aeruginosa	4	11
*Proteus mirabilis	2	2
Alkaligenes faecalis	0	3
Incidental organisms		
Bacillus crassus	2	1
B. subtilis	0	1
Paracolobacterum	0	1
Ramibacterium	1	1
Lactobacillus acidophilus	1	0
Yeast	2	0

* Pathogenic organisms.

Of the 89 subjects evaluated, 20 were outpatients from the Gynecologic Clinic of the Reading Hospital, and 69 were private-office patients.

In eleven patients in the postmenopausal group, there was no gross suggestion of vaginal infection, by pelvic examination or study of the hanging drop preparations. Further laboratory investigation was not made.

In this study, no pure cultures were obtained. In most instances, the pathogen was paired with a saprophyte. Where two pathogens were recovered from the same patient, however, the clinical symptoms were usually severe.

Results of Treatment

In evaluating the results, the following criteria were established:

Excellent: immediate relief of symptoms with no recurrence of discomfort after 2 weeks of treatment.

Good: delayed relief of symptoms (8-14 days) requiring continuation of treatment beyond the third week.

Poor: little or no immediate relief of symptoms with prompt recurrence after treatment was discontinued.

When the excellent and good results are combined, satisfactory results were obtained in 22 of 28 patients (79 percent) in the premenopausal group. In the postmenopausal group, 51 of 61 patients (84 percent) responded satisfactorily to the treatment regimen.

If the 20 patients are discounted who fell into the category of estrogen deficiency without secondary infection (i.e., simple atrophic vaginitis), 31 of 41 patients still obtained satisfactory relief. These figures are comparable to that of the premenopausal vaginitis group treated with AVC Improved Cream.

Objective Evaluation

Clinical investigators are constantly challenged to establish objective criteria to support overall evaluation of patients. In this series, repeat cultures showing elimination of the pathogens and cell maturation counts proved valuable. All patients classified as "excellent" or "good" showed elimination of the pathogenic organisms on repeat cultures after the cessation of treatment. Cell maturation counts were classified: poor: more than 20 percent inner basal cells; moderate: 20-5 percent inner basal cells; slight: less than 5 percent inner basal cells.

In the premenopausal group, only 2 of 18 subjects showed more than 20 percent inner basal cells, reflecting the denuding effect on the vaginal mucosa. Ovarian function was obviously satisfactory in these younger women, and this effect on cell maturation must be attributed to the severity of infection.

In the postmenopausal group, the denudation was the result of combined estrogenic deficiency and infection. Before treatment with AVC Improved

TABLE IV

Etiologies

Etiology	Premenopausal Group				Postmenopausal Group			
	Excellent	Good	Poor	Total	Excellent	Good	Poor	Total
Bacterial	8	6	0	14	16	6	4	26
Trichomonal	1	3	5	9	1	2	3	6
Monilial	1	3	1	5	4	2	3	9
Estrogen deficient	0	0	0	0	20	0	0	20
TOTAL	10	12	6	28	41	10	10	61

TABLE V

Cell Maturation

Result	Premenopausal Group (28 patients)		Postmenopausal Group (61 patients)	
	Before Rx	After Rx	Before Rx	After Rx
Poor	2	0	26	0
Moderate	4	1	16	5
Slight	12	3	13	41
TOTAL	18	4	55	46
Not Done	10	24	6	15

Cream with Dienestrol, 26 of 55 patients evaluated showed more than 20 percent inner basal cells. After treatment, no subject showed severe atrophic changes, and only 5 of 46 showed moderate failure of cell maturation.

Reasons for Failures

Lang[1] lists eight basic principles to review in patients in whom resistant or recurrent vaginitis occurs: (1) inadequate review of previous medications; (2) inaccurate diagnosis; (3) inadequate or incorrect medications; (4) true reinfection; (5) change in causative organism; (6) insufficient duration of therapy; (7) overtreatment; (8) vulvovaginal sensitivity to the drug.

In a review of the 89 patients in this study, poor results were seen in 16.

Two patients developed systemic sulfonamide sensitivity, one in the second week of treatment, the other in the third. By history, each of these individuals had in the past taken a sulfonamide orally without adverse effects. Both recovered uneventfully with cessation of therapy. A local chemical vaginitis occurred in 4 of 89 patients in this study; one of the four proved sensitive to both sulfonamide and dienestrol. When these two drugs are combined in a cream for vaginal instillation, the physician should be aware of the possibility of hypersensitivity.

TABLE VI

Summary of Poor Results

Cause	Premenopausal Group	Postmenopausal Group
Resistant organisms	3	3
Chemical vaginitis	1	3
Poor patient cooperation (refused Rx)	1	1[*]
Systemic sulfonamide sensitivity	0	2
Lost to follow-up	1	2
TOTAL	6	10

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[*] Inadequate control of diabetes.

REFERENCE

1. Lang, Warren R., and Woldorf, Norman M., Leukorrhea in the adult female, *West Virginia Med. J.*, 61, 11-4, Jan., 1965.

• Evaluated in this study were AVC Improved Cream and AVC Improved Cream with Dienestrol (The National Drug Company).

For Intensified Study Of Family Planning

Continued demographic research and the improvement of demographic techniques are basic to improved understanding of fertility and to efforts that may be made to control it.

Family-planning programs have developed a variety of formats, goals, and procedures. Perhaps even more diversity will be desirable in the future. We need operations research that will permit comparisons among a variety of organizational forms; explorations of new ways of making use of the skills of private medical practitioners; more imaginative schemes for recruiting, training, and using nonprofessional workers; and more trials of schemes to provide direct incentive benefits to those who use or recruit others to use effective contraception. We also need more long-range comparative studies similar to those Dr. Christopher Tietze has been carrying on and to the international post-partum IUD experiments that the Population Council is now starting.

Our techniques for estimating the value of postponing or preventing a birth in a given economy are not highly developed. With a growing emphasis on family planning as an aid to economic development, such estimates are useful in helping to convince government decision-makers of the value of investing scarce resources in fertility limitation schemes. We also need more refined comparative techniques for calculating the costs of preventing a birth, and improved ways of estimating the effects of fertility of mass IUD insertions and other contraceptive programs.

It would be well to know more about ways in which family-planning information diffuses through a society and about how contraceptive practices are legitimized and social support created. As John Takeshita has written, "There is a point in the diffusion process when the idea suddenly catches on and whether to do or not to do family planning is no longer strictly a choice that is individually made but [one that is] socially expected." Research on processes of information diffusion will surely be continued and expanded.—Lyle Saunders, program associate, Ford Foundation population program.

Vertigo Can Be Cured

Vertigo has several causes, and generally can be cured by medical or surgical treatment, according to a Pennsylvania physician who addressed the American Medical Association convention in Philadelphia.

Robert J. Wolfson, M.D., of the department of otolaryngology, University of Pennsylvania School of Medicine, said that the main causes of vertigo are trouble in the labyrinthine system of the ear, and Meniere's disease.

Public Health Aspects of Heart Disease

PART II

Is rheumatic heart disease preventable?

Although its precursor—rheumatic fever—can be prevented by means of prompt, adequate treatment of streptococcal invasion, 40 percent of such infections are, unfortunately, asymptomatic, usually going unrecognized. Rheumatic fever is preventable only when the antecedent streptococcal infection is recognized, and by this means, rheumatic heart disease is preventable.

Is there a "typical" streptococcal infection that causes rheumatic fever?

The "typical" infection involves a bright-red sore throat, fever, often tender nodes, and sometimes a scarlatiniform rash. Otitis media may also occur.

Is it essential to prove the presence of streptococci by throat culture?

It is wise to have laboratory confirmation, but even without it, one should treat a sore throat as streptococcal, in the face of sound clinical suspicion, rather than withhold treatment—especially during epidemics.

What about atypical cases?

Here, throat cultures are important, enabling the physician to start appropriate therapy when he might otherwise dismiss a mild infection without giving antibiotic treatment.

But we seldom see *mild* cases!

That's true. People—especially parents of young children—should be educated to the gravity of streptococcal infections, so that they will seek medical help promptly. And physicians must remain "suspicious."

What is the treatment of choice for streptococcal sore throat?

Parenteral penicillin for ten days—with due regard, of course, to the usual safeguards in relation to allergy. It is wise to check the throat culture after therapy, if possible, and it is helpful to an estimate of complete recovery to follow the fall to normal of an elevated sedimentation rate.

What proportion of streptococcal infection cases lead to rheumatic fever?

About 3 percent. Remember that not all cases of rheumatic fever give a clear-cut history of antecedent streptococcal disease. In the child or young adult, watch for unexplained loss of appetite, and for fatigue, pallor, nosebleed, polyarthritis, etc. Such patients should be on prophylactic regimens, just as are patients with diagnosed rheumatic fever. To prevent rheumatic heart disease, we must prevent recurrences of rheumatic fever.

Please recommend a program for preventing such recurrences.

The wisest approach is continuous prophylaxis after the first proven attack, especially in children and young adults. Older people present a lower risk of recurrence. Prophylaxis should include administration of intramuscular benzathine penicillin G, 1,200,000 units, once a month. Since allergic reactions are most common following parenteral penicillin, many physicians prefer oral buffered penicillin, 200,000 or 250,000 units, once or twice daily. Oral sulfadiazine, 1 gm. per day, is just as good. Since streptococcal infections sometimes recur while pateints are on oral therapy, some physicians add therapeutic doses intermittently.

What are the hazards of such wide use of penicillin and the sulfa drugs?

With penicillin: urticaria, angioneurotic edema, and—(sometimes confused with recurring rheumatic fever) —fever, and joint pains. With benzathine penicillin G, there often is discomfort at the injection site. The hazards with sulfadiazine include: infrequent urticaria or rash—in addition to which, sore throat, fever, or a drop in white blood cell count may herald more serious trouble; if these occur, sulfadiazine should be discontinued.

Have you any other suggestions?

Yes, these less dramatic common sense approaches should be borne in mind: avoid contact with people suffering from colds or sore throats; maintain resistance by means of proper nutrition and rest; avoid chilling and wetting. Also, if a member of the same household contracts a streptococcal infection, anticipate possible infection of the rheumatic fever patient by treating him as though he were also infected.

Will rheumatic heart disease ever be universally preventable?

Due to chemotherapy, adequate central heating, increased use of automobiles and buses (reducing exposure to weather), better nutrition, etc., rheumatic fever is less frequent than formerly. A continuing, constant vigil at all approaches will help us reach the goal of preventing the disease.

● William G. Leaman, Jr., M.D., questions Katharine R. Sturgis, M.D., professor and chairman of the department of preventive medicine, Woman's Medical College of Pennsylvania, Philadelphia. Dr. Leaman, Fellow, Council on Clinical Cardiology of the American Heart Association, edited this brief for the Council on Scientific Advancement, in cooperation with the Pennsylvania Heart Association.

Sustained circulatory, respirator
and cerebral stimulation for th

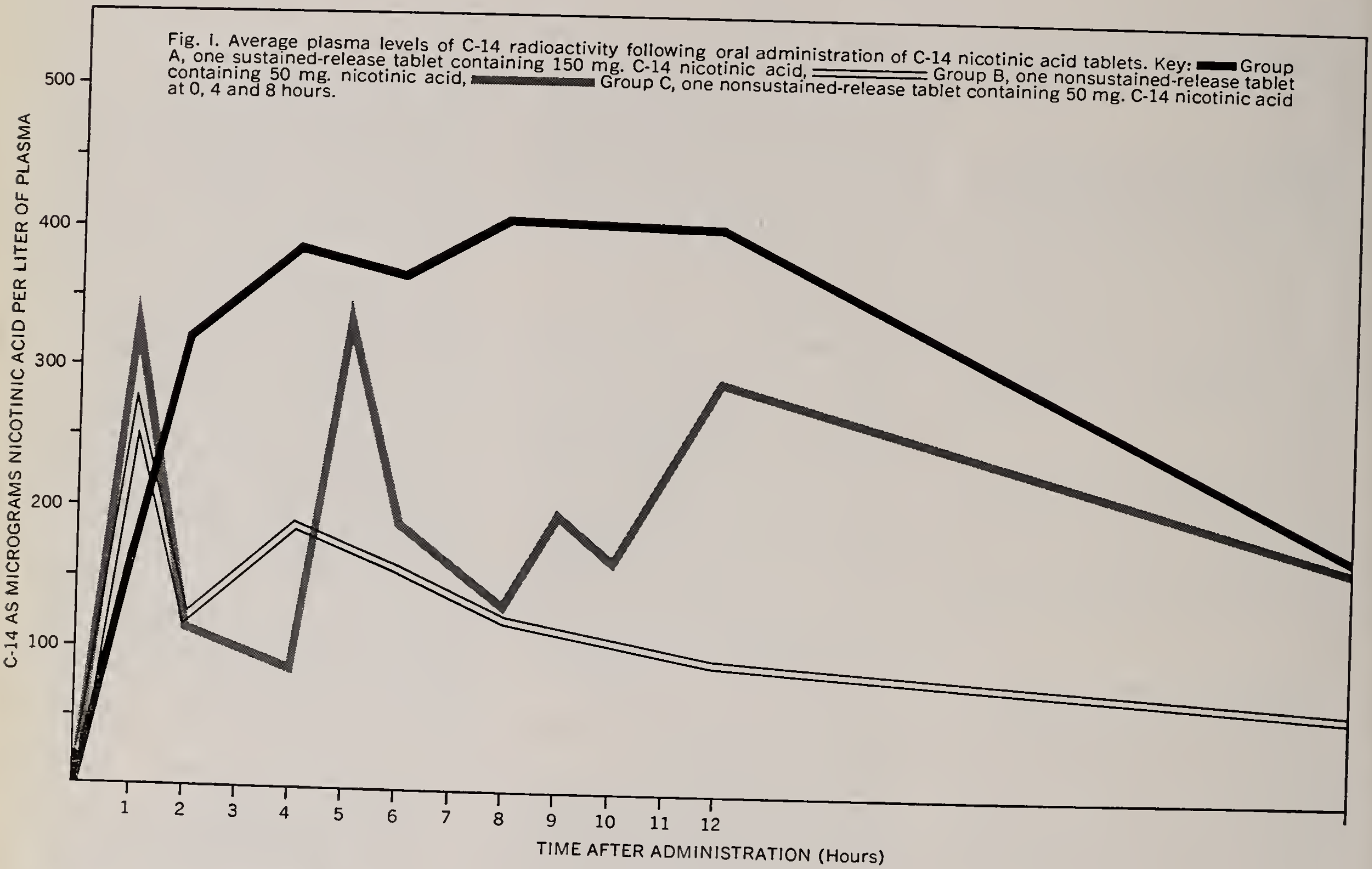

Fig. I. Average plasma levels of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═ Group B, one nonsustained-release tablet containing 50 mg. nicotinic acid, ▬ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

(fewer absent doses by absent-minded patients)

Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated

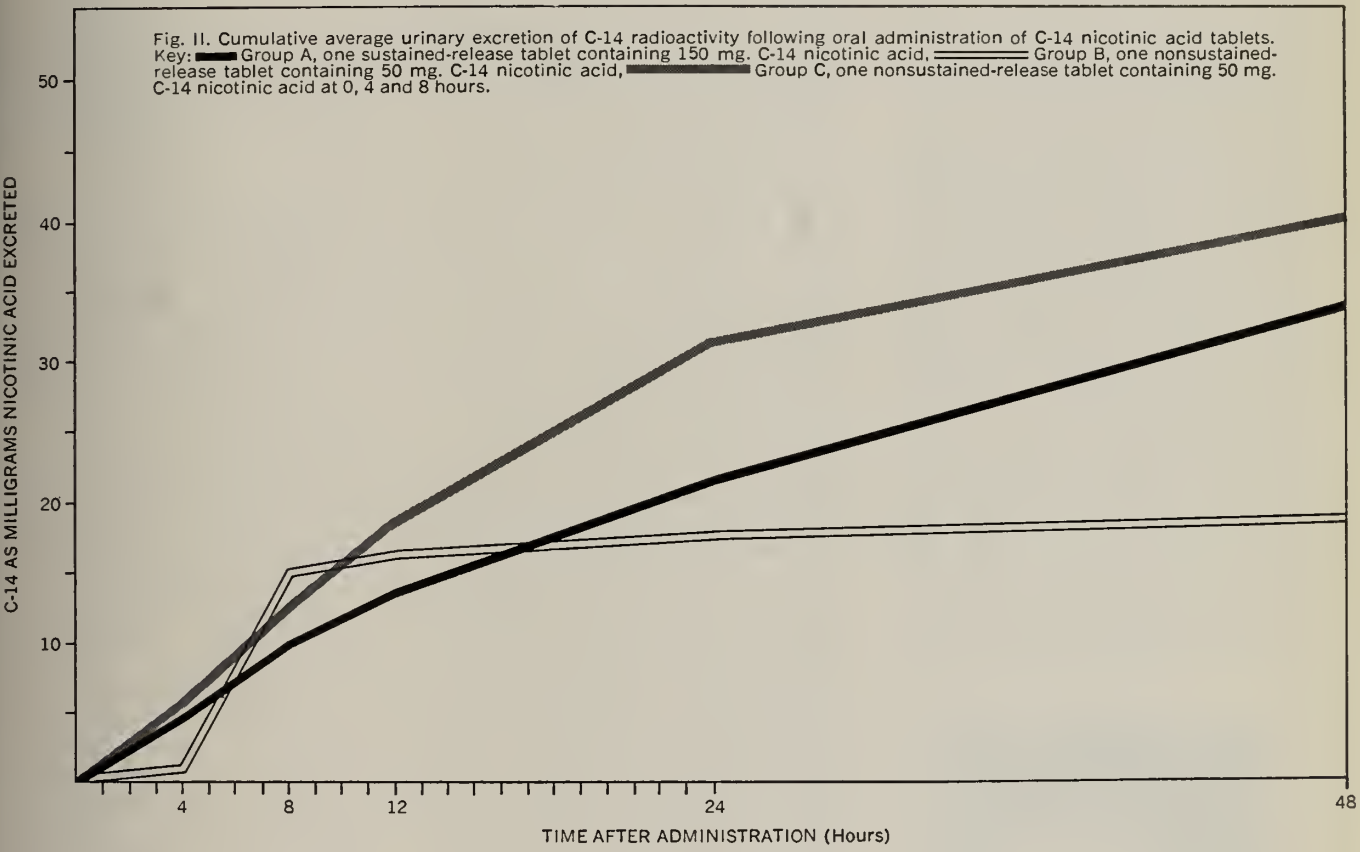

Fig. II. Cumulative average urinary excretion of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═ Group B, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid, ▬ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

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Narcotics Use and Abuse

Drugs – the unique pain-relievers – are indispensable to the care of patients, yet in misuse of them lies the grave threat of addiction

EMIL S. TRELLIS, M.D.
Torrance, Pennsylvania

In alleviating pain, no drug group compares with those which include (1) the opium derivatives, or (2) the synthetics which have similar pharmacological properties. Opium derivatives commonly used in medical practice are: morphine, hydromorphone, paregoric, codeine, and hydrocodone; (not now used medically, but remaining the addicts' "drug of choice," is another opium derivative—heroin—importation of which is legally banned). Synthetics are: meperidine, alphaprodine, methadone, oxycodone, and levorphanol.

Significant for this discussion are the properties which make the use of the drugs a problem: tolerance, and physical and psychic dependency. As pain continues, ever-increasing amounts of the drug are required, to achieve a given result—the body having become "tolerant" of the pharmacologic effects. This occurs not only in the central nervous system, where the depressant effect on the respiratory center is lessened, but similarly in the other organ systems.

■ *Dr. Trellis, Director, Narcotics Addiction Treatment Program of Western Pennsylvania, was a consultant to the Task Force on Addiction (part of the state's Comprehensive Mental Health Plan), and for two years was staff psychiatrist in charge of the Women's Addiction Service at the federal hospital in Lexington, Kentucky. A member of several professional organizations, he is a clinical instructor at the Western Psychiatric Institute and Clinic.*

If after several weeks' usage, narcotics are abruptly discontinued, certain "abstinence syndrome" or "withdrawal syndrome" symptoms and signs appear; subjectively, they include chills, nausea, anorexia, muscular discomfort, restlessness, and insomnia; observable are yawning, perspiration, lacrimation, rhinorrhea, "goose flesh," muscle twitches, vomiting, diarrhea, and dilatation of pupils. In some instances, the general stress imposed by the fluid and electrolyte imbalance in the presence of pathologic processes such as heart or kidney disease, diabetes mellitus, and the like, could result in death. Normally, the syndrome can be abated easily and dramatically by administering the appropriate amount of a narcotic. Within three or four days, discomfort lessens—although the individual remains weak; the body apparently becomes physiologically or "physically" dependent on the drug, so that without it there is transient dysfunction.

Narcotics used over a long period not only relieve pain, they also reduce the individual's concern with life's stresses and strains. Feelings of anxiety, inadequacy, depression, and hostility are considerably lessened. Since some individuals experience euphoria, a "high," or a sense of tranquillity, the narcotic used may bring relief from psychic as well as physical discomfort; with an exaggerated sense of well-being, the person develops a "craving" for the drug.

Addiction is occasioned by these reactions. The definition for addiction which the World Health Organization has proposed is as follows:

> ". . . a state of periodic and chronic intoxication detrimental to the individual and to society, produced by the repeated consumption of a drug (narcotic or synthetic). Its characteristics include: (1) an overpowering desire or need (compulsion) to continue taking the drug, and to obtain it by any means; (2) a tendency to increase the dose; and (3) a psychic (psychological) and sometimes a physical dependence on the effects of the drug." [1]

In order to consider the misuse of barbiturates, amphetamines, tranquilizers, and the like, as well as to minimize confusion in differentiation between the terms "addiction" and "habituation," the technically-preferred term, "drug dependence,"[2] implying psychic and/or physical dependency, was recently adopted.

The prescribing of narcotics, like that of any medication, is the sole responsibility of the physician, and depends on his medical judgment. Law enforcement personnel do not aim to dictate medical practice to the physician—occasional misimpressions to the contrary notwithstanding. "Laws and regulations controlling narcotic drugs are not intended to interfere with their administration in legitimate medical practice." [3] Physicians must constantly bear in mind, however, the addictive properties of narcotics.

"Medical addicts" suffer only to the extent that they have trouble obtaining narcotics prescriptions. For many, this poses no problem; for some, it means convincing a physician that the degree of pain justifies the continued use of narcotics. Although a few ultimately become involved in criminal behavior to secure drugs, medically addicted persons as a group are no great social problem.

Problem Group

"Primary addicts" become addicted independent of illness. The complexity of the problem they create results from sociologic, psychologic, and legal factors as well as from society's attitude toward the "dope fiend."

Primary addiction is most prevalent in the larger cities, usually (but not exclusively) in lower socioeconomic groups. The 1963 breakdown according to ethnic groups, of 48,535 known addicts listed by the Federal Bureau of Narcotics, is as follows: Negroes, 53.8 percent; Puerto Ricans, 11.7 percent; Mexicans, 6.6 percent; all other Caucasians, 26.9 percent; all other addicts, 0.7 percent.[4]

Narcotics seem to offer an escape, if only transient, from the miseries of life, comparable with the escape values of alcoholism, sexual promiscuity, juvenile delinquency, and other forms of antisocial behavior—all of them most common in areas of social and economic poverty. Drugs are used not only in order to avoid the painful abstinence syndrome, but also to lessen emotional discomfort, thus contributing to "psychic dependency." Although the preponderance of narcotics addiction is seen in the economically deprived, persons such as doctors, nurses, housewives, and others can also become addicted, a fact which points up individual differences, including differences in personality.

Most narcotics addicts suffer from poor impulse-control, their need for what seems to be immediate gratification of impulses often leading to poorly-thought-out actions which can be self-defeating. Many addicts are persons who cannot find satisfaction in their relationships with other people, not only in competitive situations, but also in the give-and-take interaction between friends. The addict, because of a high degree of sensitivity to rejection, may feel unwanted; in sociosexual situations, he may be uncomfortable in his sexual role; in many addicts, there is a subtle but definite undercurrent of depression for which narcotics offer some relief.

Legal Aspects

Legal ramifications of the narcotics addiction problem began with the 1914 passage of the Harrison Act, a revenue code dependent upon the Bureau of Internal Revenue for enforcement. This act not only has regulated the importation of narcotics and their domestic distribution, it has also been used to restrain addicts from having legal access to their drugs. Various Supreme Court interpretations regarding this act have followed—often criticizing certain physicians for selling narcotics prescriptions to addicts solely to satisfy addiction needs.[5, 6, 7]

These interpretations prevented physicians, because of their own legal jeopardy, from attempting to treat addiction as an illness. In spite of the most recent (1925) Supreme Court interpretation,[8] which specifically mentioned that the Harrison Act said "nothing of 'addicts' and does not undertake to prescribe methods for their medical treatment," physicians hesitated to become involved. Addicts, therefore, had little opportunity to satisfy their addiction needs except through illicit activity.

During the 1919-24 period, approximately forty cities set up dispensaries and outpatient clinics for the medical treatment of addicts, making narcotics available. Although some of these clinics, having been poorly conceived, were failures, others apparently operated successfully in preventing criminal behavior on the part of the addict.[9] But under pressure by the Bureau of Internal Revenue, all clinics finally were closed—which action, together with physicians' reluctance to become involved in treatment, meant that more illegal activity arose as the addicts tried to obtain drugs. Despite vigorous enforcement efforts and thousands of arrests, the illicit traffic continued.

Recent Laws

Subsequent federal laws[10, 11] postulated that more severe penalties would solve the problem. The most recent legislation—passed by the Eighty-fourth Congress—increased the mandatory minimum sentence for a first offense to two years in prison for possession of heroin or the like, and five to ten years (without parole) for anyone who "receives, conceals, buys, or sells" such narcotics. An adult giving or selling narcotics to someone under eighteen years of age faces a ten-year minimum sentence. If the drug is heroin, life imprisonment can be imposed by the court, the death penalty by a jury.

The states have followed this lead with their own legislation, imposing heavier penalties than previously for narcotics laws violations. Since this approach apparently has not solved the problem of narcotics addiction, revisions of some portions of the legislation is said to be in order.[12, 13, 14]

The severe laws mentioned largely reflect society's attitude toward those illicitly using narcotics. In February, 1964, the following statement appeared in a popular magazine:

"To get the money he needs, a junkie steals anything from anybody. And if he must kill to get the money he needs to get the drug he craves, he will not stop at killing."[15]

The most commonly committed crimes include prescription-forging, the sale of narcotics, prostitution, shoplifting, and other forms of theft such as robbery and burglary. Crimes of violence such as rape, aggravated assault, and murder are relatively uncommon, according to data collected by the Chicago Police Department,[16] similar to data presented in the Interim and Final Reports of the Joint Committee of the American Bar Association and the American Medical Association on Narcotic Drugs, as well as those presented by the President's Advisory Committee.[18]

Popular Misconceptions

Also implicit in the public's conception of the "dope fiend" is that he is a hedonistic creature pursuing sexual delights denied the nonaddicted. Actually, most addicts seem to lose sexual desire, and most female addicts cease to menstruate. One commonly accepted concept is that in addicts, the background anxiety is chiefly related to pain, sexuality, and expressions of aggression.[19] Psychoanalytic concepts further suggesting the impairment in adult sexuality appear in the literature.[20] If the narcotics user gratifies sexual impulses through his use of drugs, his action is a substitute for sexuality, or a defense against it. Although such addicts may be capable of performing sexually, their sociosexual relationships often cause or enhance feelings of inadequacy, frustration, and loneliness.

Although the addict is not a crazed individual, incapable of control or reason, the person using cocaine is subject to persecutory delusions as well as to frightening hallucinations; one addicted to barbiturates or alcohol often is so confused that his judgment is poor; he may be verbally or physically abusive, and often he exhibits poor coordination. A comparison between barbiturate and narcotics addiction among patients in the Addiction Research Center at the United States Public Health Service Hospital in Lexington, Kentucky, resulted in this statement:

"Of great significance is the fact that such behavior (confusion, ataxia, assaultive behavior, masturbatory practice) attributed to the person addicted to barbiturates, contrasts strikingly with that of active opiate addicts, who in similar experimental situations are usually passive, retain such insight as they possess ordinarily, [and] remain well oriented and capable of executing skilled performances; [their] sexuality remains markedly reduced as long as the effects of opiates are not totally eradicated by the development of tolerance." [21]

Apparently, in order to advance in our understanding of the addiction problem, the popular image of the "dope fiend" will have to be reevaluated.

Concepts of Therapy

Contrasting with the popular attitude tending to relegate the narcotics user to the lowest levels of the social order, some authorities believe that *dispensing* narcotics, at nominal cost, can solve the dilemma. They argue that the addict is "sick," which is true, to the extent that psychopathologies of all social deviants contribute to their deviancies. We must remember that many addicted people have antisocial histories dating from long before their addiction. Were narcotics legally available, the proponents of this concept contend, the illegal market would be destroyed, and the criminal behavior occasioned by drug-seeking significantly lessened. These proponents point to the "British System."

Actually, there is no such system.[22] In England, however, physicians may prescribe narcotics for an addicted person, not merely to satisfy desire, but under circumstances when attempted withdrawal would threaten health, or when a person who functions well while receiving narcotics cannot do so when they are discontinued. Although it is fitting that physicians can thus treat addiction, this in itself is not responsible for England's not having a major narcotics problem. England never had such a problem until recent years. With increased migrations of other ethnic groups to England from the "colonies" in 1961 and 1962, the number of drug offenses (particularly those involving marijuana) has greatly increased. This trend suggests a sociologic relationship.[23]

What Is the Answer?

What can be done about this serious problem? In spite of considerable effort over the past thirty years, the United States Public Health Service Hospitals—one at Lexington, Kentucky, the other at Fort Worth, Texas—do not seem to be the answer. All too often, Hunt's study [24] is loosely quoted, that "90 percent of those who leave Lexington return to drug use within six months." We must bear in mind that the great majority of those followed returned to their old environments, and that little was done in the way of discharge planning or of controls. It is easy to understand why, with their emotional makeup, most addicts revert to drug use under such circumstances.

Following California's lead,[25] some states either have implemented or are considering a civil commitment procedure for narcotics addicts. In some instances, hospitalization can replace incarceration, providing not only withdrawal from the drug—plus other hospital benefits such as psychotherapy, attempts at resocialization, and development of work habits—but also such follow-up advantages as job-finding, job-training, adequate living accommodations, and other community supports.

Periodic testing should also be done, to determine whether or not the patient has reverted to drug use. This is done either indirectly—by intravenous injection of Nalline (causing pupil-dilatation and other signs of the abstinence syndrome, depending on the amount used)—or directly, using a thin-paper or gas chromatography analysis of urine. By using antinarcotic detection and other innovations in the supervisory process, various probation-parole offices throughout the country are having successes which previously could not have been anticipated.

Also occasioning optimism is the Synanon experiment in California: [26] certain individuals who have been addicted to narcotics develop sufficient motivation and self-discipline, while living in Synanon, not only to abstain from narcotics but also to live with order, dignity, and relative peace. Although no figures are available on the number of Synanon members living without drugs *apart* from the headquarters, there are such individuals. Synanon is a significant breakthrough in the resocialization process of the ex-addict.

Another major step involves the development of "halfway houses" for ex-addicts who leave institutions. This concept is a part of California's rehabilitation program. The National Association for the Prevention of Addiction to Narcotics [27] is developing such a setup, and is helping develop others in New York, as well as in Chicago, Detroit, and Los Angeles. An innovation was the establishment, by the Probation Department of the New York State Supreme Court, of such a facility on Staten Island.[28] Although these facilities may serve various purposes, their chief one is to provide support for the person attempting to return to society without his previous support—narcotics.

Another exciting major experiment is being conducted by Dole and Nyswander.[29] Selected patients are given large amounts of methadone (a synthetic narcotic taken orally) with the rationale that tolerance to the effects of heroin—including the euphorgenic—is established. Social and economic adjustment, and the amount of drug needed for maintenance, are factors being closely observed. Initial experience has occasioned considerable optimism. This controlled experiment seems much more reasonable than dispensing narcotics freely to anyone who registers at a clinic. Since some addicts benefit from receiving narcotics, we must learn how to determine who should receive dosages, and how large the dosages should be.

Maturing Out

"Maturing out of addiction" does occur,[30] the need for narcotics lessening as emotional problems centering about sexuality, aggressiveness, vocational choice, parental conflict, and the like are somewhat resolved with the passage of time. This may be a function of the cycle of addiction, in terms of a given number of years of drug use being a part of the process. A combination of factors may be responsible for the change. In many cases, evidence suggests that either because of the patient's chronological age or the number of years narcotics were used, a spontaneous remission occurs.

Narcotics addiction is one of the profound social problems of our time. Although the number of addicts is small compared with numbers of alcoholics, schizophrenics, or mental defectives, the suffering of those involved is no less pronounced. Aside from pharmacologic information obtained through excellent research, little has been learned of "treatment." Equally significant is the fact that apart from treatment provided in federal hospitals, little was done until this past decade.

Today, there is no reason to feel hopeless about the problem, for as more is learned from various endeavors throughout the nation, a greater degree of individual and social benefit can be achieved.

• **For a bibliography, write Pennsylvania Medicine.**

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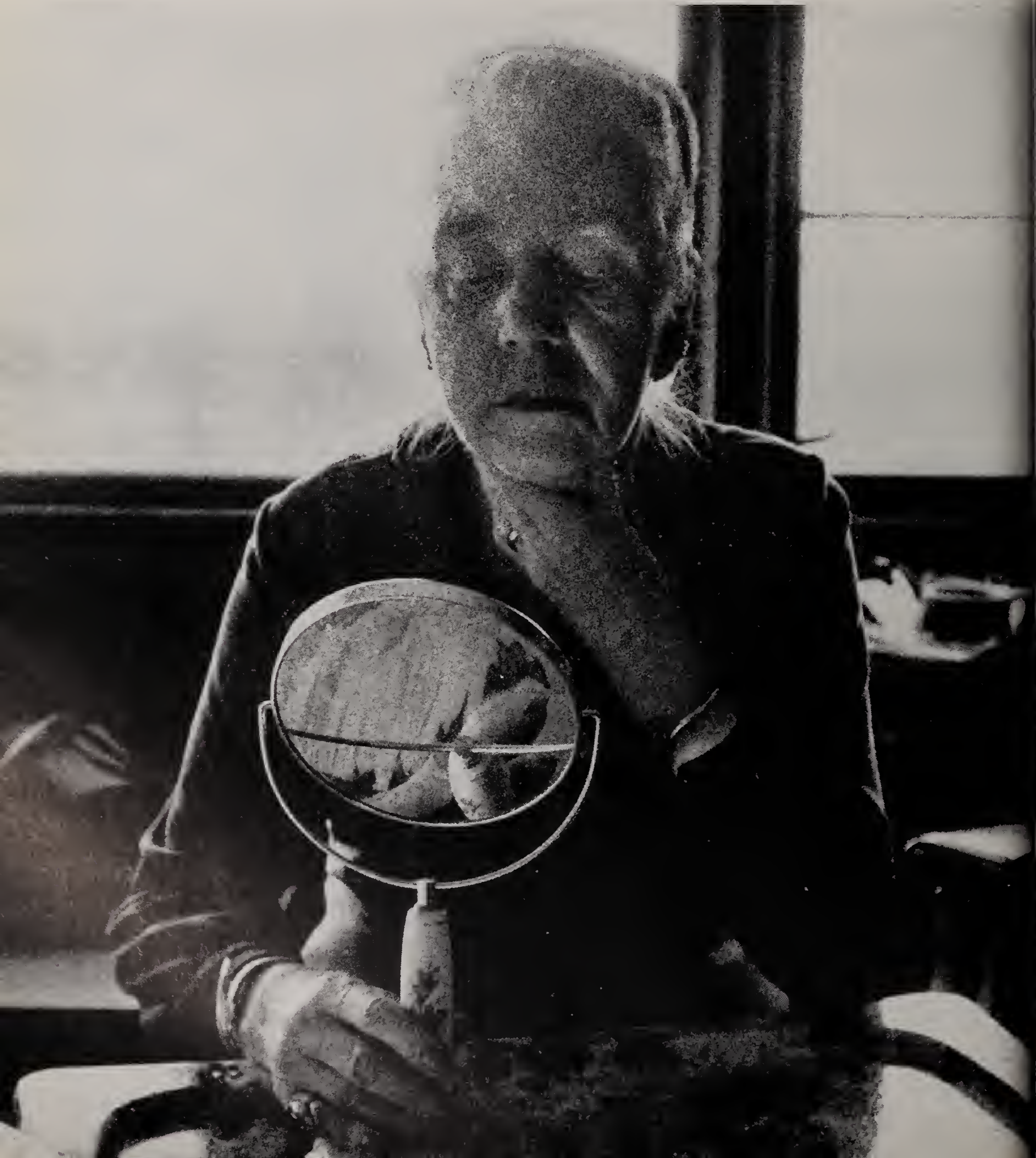

The Mediatric Age:

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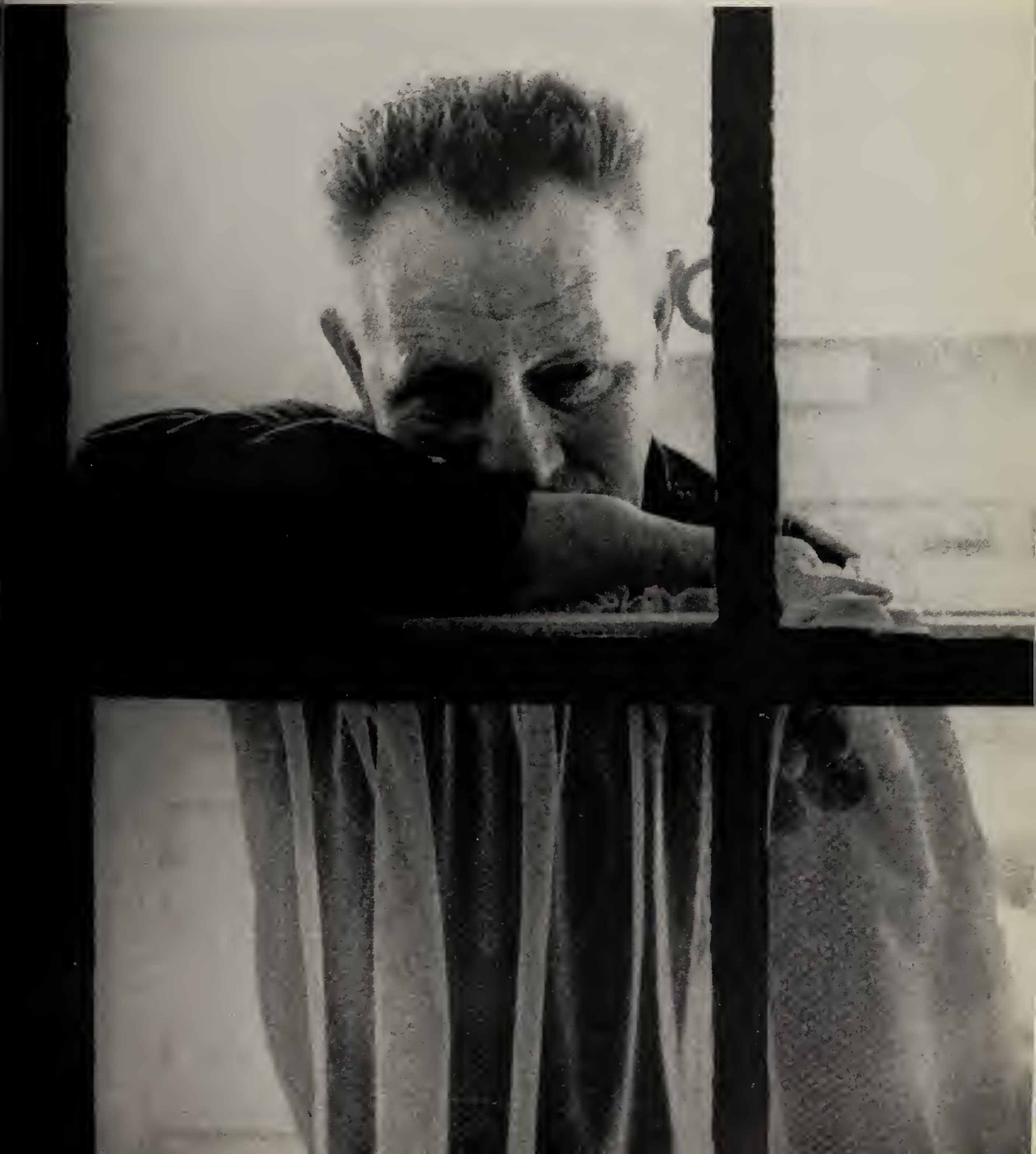

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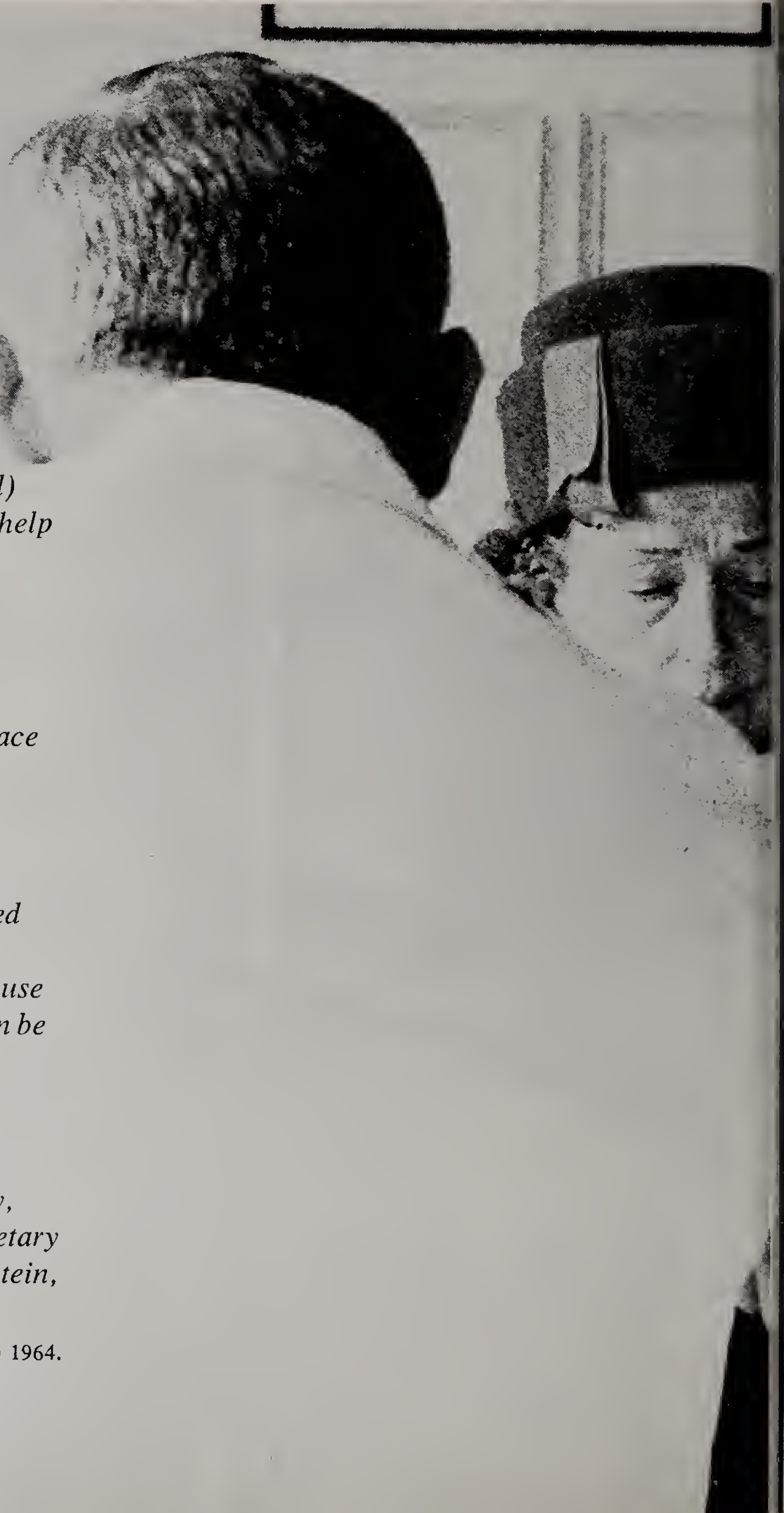

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McNeill, A. J.: Clin. Med. *8*:518 (Mar.) 1961.

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Arnold, E. T., Jr.: Geriatrics *12*:612 (Oct.) 1957.

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Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

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Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

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Riccitelli, M. L.: J. Am. Geriatrics Soc. *12*:489 (May) 1964.

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A Noteworthy Book Reviewing Cancer Therapy

Current Perspectives in Cancer Therapy was edited by two distinguished Pennsylvania physicians who need no introduction to our readers—William S. Blakemore and I. S. Ravdin. Both are professors of surgery at the University of Pennsylvania School of Medicine, Dr. Blakemore in the Department of Surgery of the Division of Graduate Medicine. Dr. Ravdin recently retired after serving as Vice-President for Medical Affairs.

The two editors are among the thirty-two authors of the book. Most of the contributors are Pennsylvanians whose names will be familiar to our readers as notable authorities in the fields dealt with in their contributions. For an occasional subject, it was necessary to seek an authority outside our commonwealth!

This is a practical book, and a small one. (It has not been established, in literature, that being a great authority generally makes it difficult to be brief, but we do know that in this case, every one of the thirty-two contributors achieved a refreshing brevity.)

We recommend this book as a means of achieving, in about 230 pages, a perspective on the current treatment of cancer. Copyrighted in 1966, the volume is available from the Hoeber Medical Division of Harper and Row, New York, N.Y.

C.B.L.

Let Them Know

Pages 9-12 of this issue introduce a unique form of pharmaceutical advertising. We suggest that you write to Raymond C. Pogge, M.D., Dorsey Laboratories, Lincoln, Nebraska, and give him your reactions to the material. An important part of drug companies' advertising programs is service to the medical profession. You can help Dorsey and others serve you better by evaluating the four-page insert that is part of the May PENNSYLVANIA MEDICINE.

PMS 'Voice' Worldwide

■ PENNSYLVANIA MEDICINE reaches not only PMS members and many American organizations concerned with medicine. In twenty-nine foreign countries, fifty-three institutions also receive the State Society's official publication, as follows:

Argentina; Australia; Belgium; England (3); Canada (6); Chile; mainland China (2); Cuba (2); Denmark; Finland; France; Germany; Holland; Jamaica; Japan (2); India (4); Israel; Italy (9); Mexico; Philippines (2); Poland; Portugal; Rhodesia; South Africa; Sweden; Switzerland; and U.S.S.R.

• Americans work 2 hours 19 minutes of every 8-hour day to meet federal, state, and local tax bills, says Tax Foundation, Inc.

• During the past ten years, Pennsylvania has had 72 deaths due to tetanus. Two or three persons who died recently of tetanus had not been immunized against the disease.

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and improved joint function. Relief of
ptoms is often accompanied by in-
sed appetite, gain in weight and an
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initial response is usually maintained
out dosage increases; indeed, initial
ge is often reduced for maintenance
oses.

cylate or steroid therapy can usually be
nished or, in some instances, eliminated.

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Precautions
Before prescribing, the physician should obtain a detailed history and perform a complete physical and laboratory examination, including a blood count. The patient should be kept under close supervision and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools. Regular blood counts should be made. The drug should be used with greater care in the elderly.

Warning
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Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea and sulfonamide-type agents and insulin. Patients receiving such concomitant therapy should be carefully observed for this effect.

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attributed to the drug. Thrombocytopenic purpura and aplastic anemia are also possible side effects. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently.

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CANCER FORUM PAGE

American Cancer Society Pamphlets on Cancer

The response of Pennsylvania physicians to a recent offering of American Cancer Society Monographs on Cancer prompted the publication of this list of pamphlets on cancer, which are designed for physicians to use or to give to patients.

The Society maintains this group of pamphlets and keeps it up to date, as a part of its professional education program. Titles are listed below:

PAMPHLETS FOR THE PHYSICIAN

- American Cancer Society—What It Is, What It Does
- Cancer Chemotherapeutic Agents (reprint)
- Cancer of the Pancreas, Biliary Tract, and Liver
- Cancer Detection
- Challenge of Oral Cancer
- Clinical Aspects of Acute Leukemia
- Communication With the Fatally Ill (reprint)
- Exfoliative Cytology
- Leukemia
- Lung Cancer Prevention and the Physician
- Management of Gynecologic Cancer
- Physicians and Cigarette Smoking (reprint)
- Pigmented Mole and Malignant Melanoma
- Proctosigmoidoscopy for the Detection of Asymptomatic Cancer
- Rehabilitation of the Laryngectomee
- Sarcoma of the Soft Tissue
- When a Woman Asks for a Pap Test (reprint)

SPECIAL PAMPHLETS FOR THE PATIENT

- Care of Your Colostomy
- First Aid for Laryngectomees
- Help Yourself to Recovery (after mastectomy)
- Rehabilitating Laryngectomees
- Your New Voice (for laryngectomees)

If you would like one or more of the pamphlets sent to you, please tear out this page, check the items you want, write in your name and address, and send to:

PROFESSIONAL EDUCATION DIRECTOR
PENNSYLVANIA DIVISION
AMERICAN CANCER SOCIETY
P. O. BOX 4175
HARRISBURG, PA. 17111

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(Your name)

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Or call or write your local American Cancer Society office, who will be happy to supply you with these pamphlets or other professional education materials.

PENNSYLVANIA DIVISION PHILADELPHIA DIVISION

AMERICAN CANCER SOCIETY

Pennsylvania Cancer Forum Page—presented cooperatively by the Council on Scientific Advancement of the Pennsylvania Medical Society, the Pennsylvania and Philadelphia Divisions of the American Cancer Society, and the Cancer Control Section, Pennsylvania Department of Health.

An Ongoing Problem of Research: Cadavers

With interest growing in the idea of willing one's body to a medical school, patients are asking physicians how to arrange for this procedure. Although the matter is primarily a legal one, physicians should know something of the steps to be followed. Information is available from John F. Huber, M.D., secretary of the State Anatomical Board, 257 South Sixteenth Street, Philadelphia 19102. This board supervises the distribution of bodies to the medical schools within Pennsylvania, deciding which school will receive each body (unless the donor's will specifies a particular school). If the deceased has made a written commitment to a body parts bank, the board receives the body after the specified parts have been removed.

Following anatomical studies, the remains are cremated with others, the ashes encased with others, and buried in the Anatomical Board's plot; a clergyman reads a committal service.

When death occurs in Pennsylvania, the board assumes expenses of transporting the body to Philadelphia. Costs of sending a body from another state or country must be borne by the estate of the deceased, or by the next of kin.

The following statement is suggested for inclusion in one's will:

> "It is my wish that at the time of death, my body be placed in the hands of the Anatomical Board of the commonwealth of Pennsylvania by my nearest of kin or [by] the executor of my estate, for delivery to one of the medical schools of the commonwealth of Pennsylvania, for studies in the promotion of scientific medicine, and [for] ultimate cremation with others and burial of the ashes with others, in the burial plot of the Anatomical Board."

This statement is not mandatory—it simply declares that after death, one's body be used to further scientific medicine. The paragraph should, however, be signed and witnessed. There should be complete understanding between the donor and his relatives, regarding this disposal of his body. Supplemental letters of agreement (from the nearest of kin) are also required, and should be signed, witnessed, notarized, and placed with the will. Copies of all letters of agreement and of the special paragraph in the will should be sent to the board, the originals being retained by the donor.

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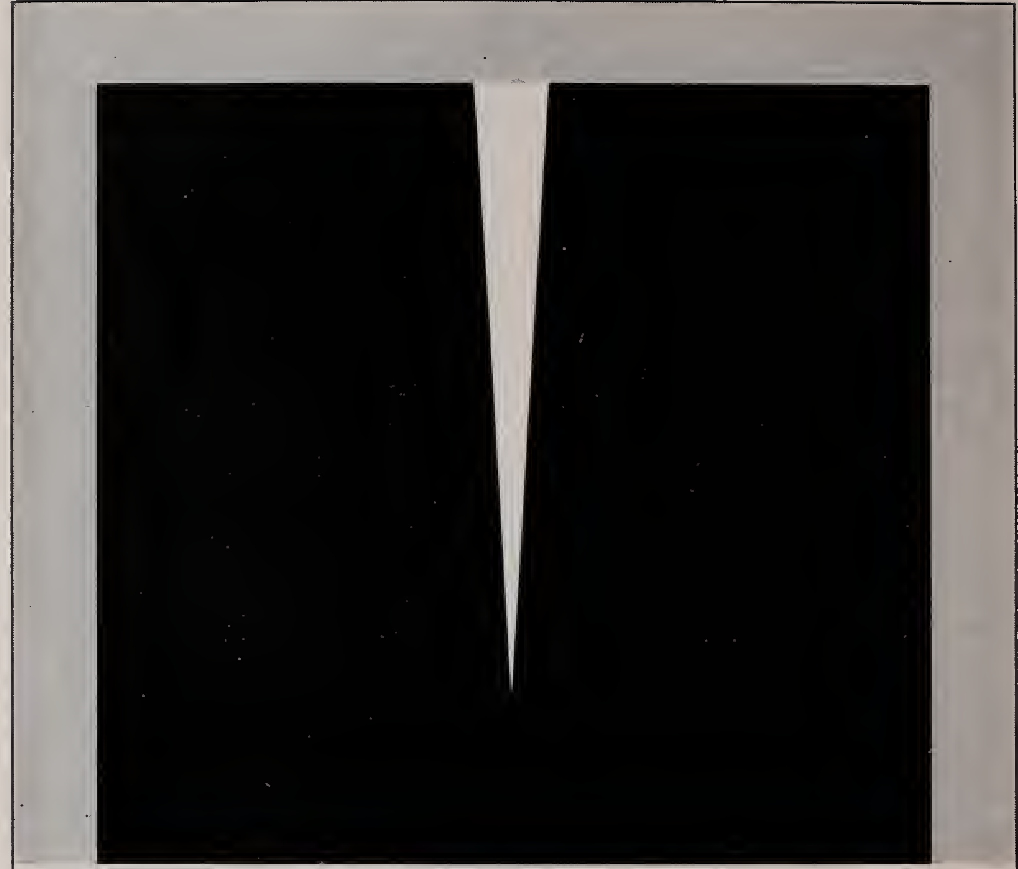

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EDITORIALS

For an Effective Group, a Large, Varied Membership

When the subject of a county medical society membership campaign is aired, most doctors respond with a wry smile and a deprecatory shrug—implying that such memberships are juvenile and should not concern the "upper classes" of physicians with more lofty concerns. Besides, these individuals feel that there is something a little embarrassing about broaching society membership to a doctor who wants to "go it alone."

But a subjective view of the organizational phase of an M.D.'s professional life makes clear that the old, respected virtues of our culture point to the value of active membership in societies. And a glance at our social institutions provides psychological and sociological stimuli for group participation.

One by-product of a sincere, realistic attitude toward membership is the example it sets for the physician who has not thought through the fundamentals of belonging, and who might be swayed by the arguments of the half-hearted. The value of our medical societies increases with the percentage of the physician population who become active members. Not mere numbers, however, but the great breadth of interest among the members, and the degree of variability in personalities and points of view, add meaning to these organizations.

You may protest, "But if a doctor doesn't want to join, why should I coax and pester him to do so? Coming in or staying out is *his* business." The points stressed above contradict this fallacy, and other points could be stressed which could very well convince you to urge your brother physician to "enter the fold."

Our immediate past president, Richard A. Kern, M.D., urges us to form or activate local membership committees dedicated to getting every doctor into the society. We heartily endorse this, urging a more personal involvement on your part. If you have an acquaintance or a friend who is not a member, you and he will both benefit when you demonstrate to him the pointlessness of perpetuating whatever fallacy or weakness in his thinking is keeping him from joining.

And that's not all! I would convince you, too, to secure additional members for an organization which would not even consider admitting you to membership—the Woman's Auxiliary. This organization is medicine's helpmate—but does *your* wife belong to it? The names of 50 percent of the doctors' wives are missing from the Auxiliary roster, a state of affairs that you can help change. Urge your lady to add her name to the list, if it is not already there.

In the medical societies, and in the Auxiliary, the concept of the value of "many members of many types" enriches and expands all the enterprises and interrelationships, making the organization a meaningful force in the medical profession and in the life of each participating member.

A Way to Bring Inactive Nurses Back to Duty

In most American communities—(certainly in most Pennsylvania ones)—a critical patient-care problem is the shortage of active trained nurses. In Middlesex County, New Jersey, this problem has been remedied in a noteworthy way: the discovery that there were nearly a thousand inactive registered nurses in the immediate area led to the establishment of a formal retraining program to bring their skills up to date and to put them back on duty.

The Middlesex pilot program began with study of refresher courses previously established in other cities. Announcement of the availability of the course in the Middlesex community resulted in a considerable number of applications for retraining. Health examinations, clothing allowances, high-level instruction, and concurrent clinical practice were provided in a formal six-week program. The twelve nurses retrained in the first course provided, in the four months following completion of the program, a total of more than two thousand hours of nursing care.

Problems encountered during the course were satisfactorily overcome. For example, the need for bringing the retired nurse up to the minute regarding administration of new drugs was a major challenge. But the instructors solved this and other problems so adequately that a second and a third course were conducted; a continuous program of courses is now in progress, and—not surprisingly—with each course there has been improvement in the program.

Johnson and Johnson, manufacturers of surgical dressings, described the project in a booklet obtainable from their public relations department, New Brunswick, New Jersey. The firm's interest in the program had been aroused by General Robert Wood Johnson, and the pilot course was sponsored by the R. W. Johnson Foundation.

The growth of the Middlesex movement, from the 12 nurses originally retrained to the 282 who enrolled in the third course, speaks for itself. This third program has achieved federal underwriting, and is under sponsorship of the Hospital Research and Educational Trust of New Jersey. Early this year, forty hospitals were ready to conduct similar programs.

We could well emulate the New Jersey example in order to relieve the nurse shortage in Pennsylvania.

We Need a Negative Approach to Smoking

What our nation needs is a well indoctrinated, *negative* attitude toward the smoking habit. Surprisingly, *positive* action can bring this about. With proper organization and backing, this negative outlook can eventually place the same onus on the ashtray as was long ago placed on the cuspidor; smoking in public will then be considered a mark of ill breeding, and indulgence in the habit will be relegated to back rooms and secluded areas carrying the same connotation as the old-time saloon.

With proper education against the tobacco habit, the public in time will not have to put up with smoke-filled meeting rooms or offices, and the smoker will no longer feel that at any time, or in any place, he can smoke with impunity.

Forces now attempting to control and reverse the smoking explosion must set the attainment of just such a negative social attitude as a positive, planned objective. Today's direct approach is not enough; exhortations to discontinue the habit, or not to begin it in the first place—for the sake of health—yield minimum results; efforts to date in that direction have yet to make an appreciable dent in the problem.

Although the former Surgeon General's report, *Smoking and Health,* made a temporary impression as an instrument to reduce cigarette consumption, the average smoker still rationalizes that "it can't happen to me," or "the day of judgment is 10-30 years away," or simply, "I'm hooked—so what?"

Congress instituted inclusion of a mild health warning on cigarette packages, but at the same time, another branch of the federal government spent a large sum to promote the use of tobacco in other countries.

News stories, pamphlets, and brochures in abundance, on the dangers of smoking, have reached adult smoker and as yet unhabituated youngsters. Although few authorities would contest the validity of these media, the fact remains that smokers continue to smoke and nonsmokers continue to take up the habit—both effectively rationalizing their lack of consistency. A potentially harmful and often unpleasant habit is not only socially acceptable, it is "the thing to do."

A radically different approach is needed—one which will create a widely-held view that smoking is repulsive, shameful, socially crass. But how can this be done? A frontal attack against smoking would require far more money than the millions which tobacco companies spend to *promote* smoking. Those millions have created a favorable image for tobacco use without pointing out its ill effects —a neat accomplishment, indeed. The health professions must accomplish an equally neat feat—that of creating a counteracting negative image of smoking, in the thinking of the public.

It can be done. Public health education is one means: an aggressive, dedicated, thoughtful campaign—nationwide, ongoing, coordinated, well financed, and cleverly directed toward creating the negative concept instead of merely presenting health facts. As public health education has made the common drinking cup or the common roller towel a thing of abhorrence, so it can ostracize the cigarette.

To supplement noteworthy efforts of existing organizations, perhaps another need is an American antitobacco society, dedicated solely to campaigning against use of "the weed." Health aspects would not be relegated to a secondary position; rather, the campaign would take a new tack by selling nonacceptability of cigarettes, and by creating an aggressive negative attitude toward smoking in general.

This goal requires vigorous organization, sound planning, adequate funds, and unrelenting work, in a consistent, unequivocating public education drive not only in regard to the health evils of tobacco, but on its social detriments as well.

Charles L. Leedham, M.D.,
Chairman, Pennsylvania Committee on Smoking and the Health of Youth.

Medicine Still Battles Man's Enemy: The Quack

"Physicians, as conservators of the public health, are bound to bear emphatic testimony against quackery in all its forms."

Is this a quotation from proceedings of the American Medical Association's Clinical Convention in Philadelphia in December, 1965?

The meeting *was* in Philadelphia, but the year was 1847!

Thus from its very inception nearly 119 years ago, the AMA has been battling quackery. It is dedicated to continuing this warfare against waste of the nation's health and its health-care dollar, and of fighting fraud that might occur at the bedside of ill and desperate people. There will always be quacks—pretenders to ability they don't possess—to take advantage of the weaknesses of human nature.

The health quack is not easily spotted today; the stovepipe hat and the pitchman's hawking have gone. In their place are their space-age counterparts—the suave, apparently sophisticated super-salesmen with the Madison Avenue manners.

These merchants of menace, more insidious and more unscrupulous than ever, have many new products—worthless diet fads, worthless food supplements, worthless cosmetic devices and treatments, worthless "cures" for everything—even into the area of brain-damage to children, and other problems of mental illness.

They bilk the undiscerning, the uninformed, the desperate, the unsuspecting, of all ages, of millions of dollars a year. Estimates of the costs of medical quackery are at best calculated guesses, but they have gone as high as a billion dollars a year. One authority in the field of quack-fighting has stated that "medical quackery each year costs more lives than all crimes in the United States [combined]."

It is this cost of life—and health—that has placed America's physicians in the front lines of the war on quacks. It is the insidious side-effect of quackery with which medicine concerns itself—the delay in proper medical care that may cost life itself.

It is for this reason, too, that the medical profession is dedicated to education of the people about cultism—chiropractic and the other health sects that turn their backs on scientific medicine.

The House of Delegates of the AMA said in 1933:

> "Either the theories and practices of scientific medicine are right and those of the cultists are wrong, or the theories and practices of the cultists are right and those of scientific medicine are wrong."

And in 1961, it said:

> "There can never be a majority party and a minority party in any science. . . ."

After the quack or the cultist has extracted his pound of flesh—after the damage is done and after the sick may have become the dying because of the delay in proper care—scientific medicine usually is called upon to pick up the pieces.

Medicine has tried and will continue to try to do that job, but how much easier the job would have been—how many lives would have been saved—if . . .

H. Doyl Taylor,
Director, Department of Investigation, AMA.

An antibiotic of choice is one that works

TAO works

Susceptibility Results Staphylococci [2,3,1]

# OF CULTURES	YEAR	% EFFECTIVE
6,725	1962	88.6%
5,440	1963	88.0%
10,384	1964	88.5%

β-Hemolytic Streptococci [2,3,1]

# OF CULTURES	YEAR	% EFFECTIVE
2,448	1962	89.5%
1,519	1963	95.2%
2,492	1964	96.7%

The Product

In a world study of antibiotics *in vitro*[1], TAO had an overall effectiveness of 87.3%, higher than chloramphenicol and erythromycin, and significantly higher than tetracycline and penicillin.

The Plus... Consistent Performance

Yet antibiotics must not only work. They must work consistently. Here are the results from the largest study of microbial susceptibility ever undertaken. In 29,048 cultures of overt staphylococcal and β-hemolytic streptococcal infections, note the consistency of results with TAO.

TAO®

[triacetyloleandomycin]

J. B. Roerig and Company, New York, New York 10017
Division, Chas. Pfizer & Co., Inc., Science for the World's Well-Being®

TAO Rx information

Indications: The bacterial spectrum includes: streptococci, staphylococci, pneumococci and gonococci. Recommended for acute, severe infections where adequate sensitivity testing has demonstrated susceptibility to this antibiotic and resistance to less toxic agents. **Contraindications and Precautions:** TAO (triacetyloleandomycin) is not recommended for prophylaxis or in the treatment of infectious processes which may require more than ten days continuous therapy. In view of the possible hepatotoxicity of this drug when therapy beyond ten days proves necessary, other less toxic agents, of course, should be used. If clinical judgement dictates continuation of therapy for longer periods, serial monitoring of liver profile is recommended, and the drug should be discontinued at the first evidence of any form of liver abnormality. It is contraindicated in pre-existing liver disease or dysfunction, and in individuals who have shown hypersensitivity to the drug. Although reactions of an allergic nature are infrequent and seldom severe, those of the anaphylactoid type have occurred on rare occasions. **References:** 1. Isenberg, Henry D.: Health Laboratory Science **2**:163-173 (July) 1965. 2. Fowler, J. Ralph et al: Clinical Medicine **70**:547 (Mar.) 1963. 3. Isenberg, Henry D.: Health Laboratory Science **1**:185-256 (July-Aug.) 1964.

In Five Days, a Wealth Of Medical Knowledge

The growth of science and technology confronts us with a bewildering, constantly growing array of knowledge and material goods. The volume added during the past ten years is astronomical, and to the physician who entered practice a decade or more ago, it is often appalling.

The bulging marketplace creates for the M.D. the dual problem of "What is available?" and "What is best suited to my practice requirements?" He can get by, of course, without trying to keep up, but this policy is not what brought American medicine to its commanding position. American medicine is geared to the person who won't settle for getting by—the intelligent and practical man who makes great demands on himself and is not content with performing according to inferior standards.

Of the many informational media, the medical convention comes closest to synthesizing all of them into a concentrated, fruitful, many-facted unit. Viewing scientific and commercial exhibits, exchanging views with colleagues, conversing with detail men, and attending lectures and seminars, the physician can absorb, in a few days' time, an amazing wealth of helpful information.

The AMA's One Hundred Fifteenth Annual Convention takes place June 26-30 in Chicago, with the Scientific Program conducted in McCormick Place and the House of Delegates meeting at the Palmer House. Virtually unlimited opportunities for gaining new knowledge and new perspectives make this event a "must" for the physician who would go far beyond the point of simply "getting by."

'Travelers' Checks'

Under a long-established state health department practice, travelers arriving in Pennsylvania from countries where six quarantinable diseases exist are placed under surveillance during the incubation period for the disease in question.

During the twelve months ending February 1, public health officials have checked forty-seven travelers for possible smallpox, fifteen for possible cholera, and four for possible yellow fever. Also on the list, as documented by the International Quarantine Convention, are plague, and louse-borne typhus and relapsing fever.

WETHERHOLD AND METZGER Famous Shoes

Ten Little Toes

carefully fitted by our
DEDICATED SHOE FITTERS

TO STRIDE RITE

Orthopedic Fitting and
Orthopedic shoes always in stock

1—Straight lasts
2—Outflare lasts
3—Fillauer night bars
4—Surgical shoes
5—Thomas Heel long counter

— ALLENTOWN STORES —
719, 958 and 951 Hamilton St.
READING STORE — 642 Penn St.

Four Great WETHERHOLD & METZGER
Stores of Famous Shoes in Allentown & Reading

PMS

OFFICIALLY ENDORSED

INCOME PROTECTION

SICKNESS and ACCIDENT

MAJOR HOSPITAL EXPENSE

ACCIDENTAL DEATH, DISMEMBERMENT and TOTAL, PERMANENT DISABILITY

Administered by

Bertholon-Rowland Agencies

Pittsburgh – Philadelphia

Mail Call

Spring Bouquets

PENNSYLVANIA MEDICINE has been receiving responses which have made the staff's recent efforts thoroughly worthwhile. Here are a few samples:

Just a note of congratulation on the most attractive and beautiful cover on the March issue of PENNSYLVANIA MEDICINE. It is literally and figuratively a work of art.

MICHAEL SCOTT, M.D.,
Philadelphia.

Congratulations on the new issue. I like the change in format and especially the new name. Also glad to see more original articles, which have not been so prominent the past few years.

DONALD C. GEIST, M.D.,
Editor, *Philadelphia Medicine*, Philadelphia.

Commendations on the new format and improved readability in your outstanding "house organ."

JULIAN A. STERLING, M.D.,
Philadelphia.

I like the new format of PENNSYLVANIA MEDICINE. I like your cover girl and I like the short description of her.

EUGENE P. PENDERGRASS, M.D.,
Philadelphia.

Congratulations on the new face, form, and substance of PENNSYLVANIA MEDICINE. The previous format was so dull and outmoded that I thought it was a waste of money to publish it.

Your emphasis on regional news and a minimum of medical articles is excellent. May I suggest that strictly medical articles be omitted entirely, and that you confine your issues to socio-economic, legal, hospital, and biographical items, etc.?

Happy to see your new face, and good luck!

JOHN W. EGOVILLE, M.D.,
Philadelphia.

The new PENNSYLVANIA MEDICINE is an achievement in design, structure, and execution. All the staff under your direction who have contributed to this notable result in the creation of an informative, attractive medical journal have put the readers in a position of obligation which it is nice to acknowledge.

JOSEPH T. FREEMAN, M.D.,
Philadelphia.

Your new PENNSYLVANIA MEDICINE arrived on my desk this hour. I don't know a darn thing about *Traumatic Aortic Rupture*, but the nontechnical aspects are presented in excellent fashion. Congratulations!

The only element missing in this March issue was a word to the effect that Irwin Richman writes on Nathaniel Chapman as Chapman's biographer—the pioneer doctor was the subject of Dr. Richman's doctoral dissertation.

ROBERT G. CRIST,
Assistant Director, Hospital Association of Pennsylvania.

The Dean Was Pleased

Thank you for the very generous space devoted to The Milton S. Hershey Medical Center in the March issue of PENNSYLVANIA MEDICINE. We were delighted to see photographs of both the model and the rendering. I thought the reproductions were excellent.

We are most grateful to you for your interest, support, and encouragement. Thank you again,

GEORGE T. HARRELL, M.D.,
Dean, The Milton S.
Hershey Medical Center.

Appreciation

We wish to express our grateful thanks and appreciation to the Pennsylvania Medical Society for the beautifully framed certificate presented to my aunt, Miss Mary Beers, commemorating her one hundredth birthday anniversary.

MARJORIE B. SALSBERY,
Harrisburg.

Hardly Adequate

I read with interest the following paragraph from a news item in the March PENNSYLVANIA MEDICINE:

"A special appropriation of $12 is recommended in the budget for implementation of the comprehensive mental health and mental retardation plans."

Do you really think $12 is going to be enough to start this comprehensive program?

WILLIAM L. BALL, M.D.,
Warren.

(The item, of course, should have read: "$12 million.")

The Editors

Thanks and a Gift

The *Journal* [PENNSYLVANIA MEDICINE] has done much to keep me informed of Society news and much to keep up my spirits since my retirement several years ago. I appreciate your kindness, and am enclosing a donation which may be used in whatever manner you think best.

WILLIAM S. WATSON, M.D.,
Ormond Beach, Florida.

(Dr. Watson's gift has been turned over to the PMS Benevolence Fund.)

The Editors

Note from Dr. Nealon

I want to thank you for the nice remarks you made about my book on *The Management of the Patient with Cancer*. I have heard many people comment about the favorable reaction.

THOMAS F. NEALON, JR., M.D.,
Philadelphia.

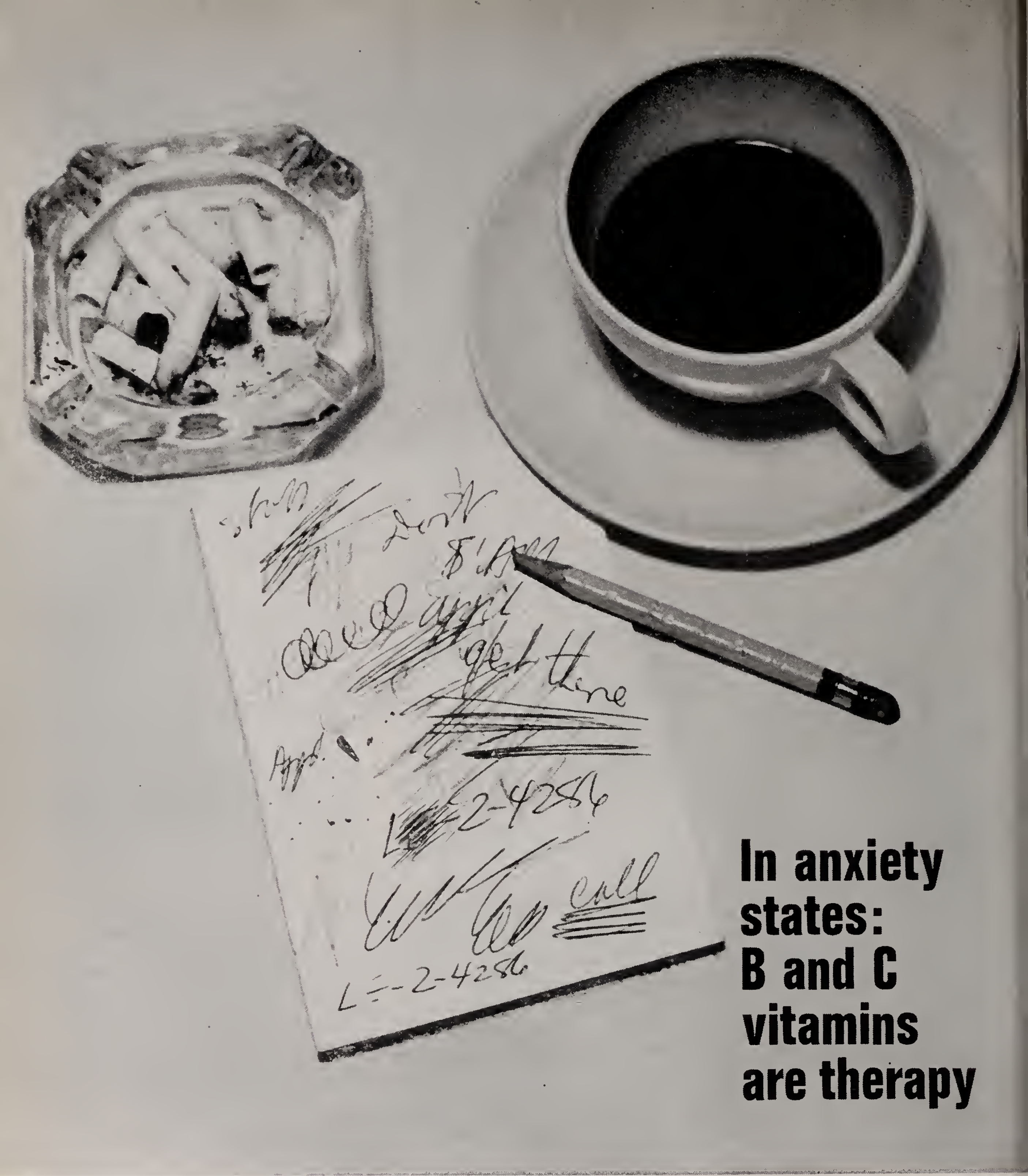
About Drug Records

The regulations regarding physicians' record-keeping requirements, as finally promulgated on January 27, specify that emergency or special situation dispensings include those "as a stopgap measure to tide patients over until a regular supply of drugs can be obtained, by prescription, from a pharmacy, or dispensings as trial doses to patients. . ."

These are, of course, instances in which a physician will not be considered as regularly dispensing. It should be noted also that under the wording of the statute, even when a physician does regularly dispense, he need not maintain records unless in some way he charges for the drugs.

C. JOSEPH STETLER,
President, Pharmaceutical Manufacturers Association,
Washington, D.C.

● **Opinions expressed in contributions to PENNSYLVANIA MEDICINE are those of the writers, and do not necessarily reflect the views of the Pennsylvania Medical Society.**



Stress formula vitamins are an important supportive measure in maintaining the nutritional status of the emotionally disturbed patient. With STRESSCAPS, B and C vitamins are present in therapeutic amounts to meet increased metabolic demands. Patients with anxiety, and many others undergoing physiologic stress, may benefit from vitamin therapy with STRESSCAPS.

STRESSCAPS®

FOR PROFESSIONAL RECOMMENDATION ONLY

Stress Formula Vitamins Lederle

Each capsule contains:

Vitamin B_1 (as Thiamine Mononitrate)	10 mg.
Vitamin B_2 (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B_6 (Pyridoxine HCl)	2 mg.
Vitamin B_{12} Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

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MEDICAL SOCIETY NEWS

Recent Actions of PMS Board

■ During its March 16 meeting, the State Society's Board of Trustees took these actions. (The Board's next meeting is scheduled for May 18–19 at the Penn Harris Motor Inn, near Harrisburg.)

Medical Education

Invited the chairman of the State Board of Medical Education and Licensure to attend Board of Trustees' meetings.

Authorized the Council on Public Service to develop a pilot course on the socioeconomics of medical practice, to be offered to the medical schools for inclusion in their curricula as an elective short course; appropriated $1,000 to cover the cost.

Authorized the Council on Public Service to conduct a Medical Practice Day program in Pittsburgh, and to mail socioeconomic information periodically to medical students.

Medicare

Approved plans of the Committee on Convention Program to present a program on medicare at the Annual Session, on the evening of October 10.

Property

Approved sale of the Society's property at 230 State Street to the American Red Cross, Harrisburg Chapter, for $145,000, with possession to be given upon completion of the new headquarters building.

Set May 18 for the cornerstone laying at the new building; requested the Committee on Archives to decide what historic items will be deposited in the stone.

Recognition

Recognized the accomplishments of Roy Jansen in writing the newspaper column, *Your Health*, weekly for thirty-three years, and wished him well in his retirement.

Appointments

Named Lewis T. Buckman, M.D., Wilkes-Barre, to fill the vacancy on the Judicial Council created by the death of William B. Patterson, M.D.

Named William A. Limberger, M.D., West Chester, to membership on the Special Committee on Heart Disease, Cancer, and Stroke.

Named the Council on Medical Service to serve in an advisory capacity to Thomas W. Georges, Jr., M.D., Assistant to the Secretary of Public Welfare for Medical Affairs.

Medical Review

Accepted responsibility for forming appropriate medical review committees in all twelve councilor districts.

Rush Awards

Named Mrs. Raymond Michener, Buck Hill Falls, as 1966 individual Benjamin Rush Award winner, and the Elizabeth Price Martin League No. 1 of Philadelphia as the Group Award winner.

Authorized a Special Award for State Senator Albert R. Pechan, Ford City dentist, for his health-related legislative efforts.

Spring Conference

Authorized issuance of invitations to the secretaries of county medical societies, to attend the County Medical Society Executive Secretaries' Conference on April 27-28.

Annual Reports

Adopted the Publication Committee's recommendation that the annual reports to the House of Delegates be summarized in Pennsylvania Medicine, and that complete reports be published in a separate booklet, of which a limited number of copies will be made.

Approved use of the prevailing fee concept in determining reasonable charges to be paid under Part B, Title XVIII, of the medicare law, and agreed to co-sponsor with Blue Shield a survey to ascertain the usual charges of individual physicians.

Medical Practice Day

The recent Medical Practice Day sponsored by the State Society in Philadelphia attracted about 250 participants—medical students, interns, their ladies, and others. All but one of the medical schools located in Philadelphia were represented.

AMA Seeks Names Of Top Journalists

With its third annual medical journalism awards program under way, the American Medical Association is receiving nominations of outstanding media personnel throughout the United States.

Five awards of $1,000 each will again go to lay individuals who have done noteworthy reporting on health and medicine via newspapers, magazines, radio, television, and newspaper or broadcast editorializing.

(Similar to the AMA project is the State Society's Donaldson Awards Program honoring journalists within Pennsylvania. Thomas W. Wertz, Greensburg newspaperman, was the individual winner for 1965.)

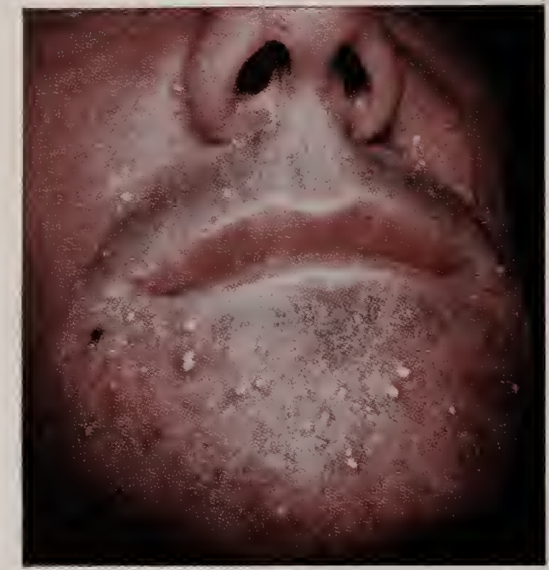
Entries for the AMA program must be received at the address given below by February 1, 1967. Authenticated examples of material placed before the public will be evaluated by a committee composed of leaders in journalistic, broadcasting, and medical fields.

For complete rules and instructions, write: 1966 Medical Journalism Awards Committee, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.

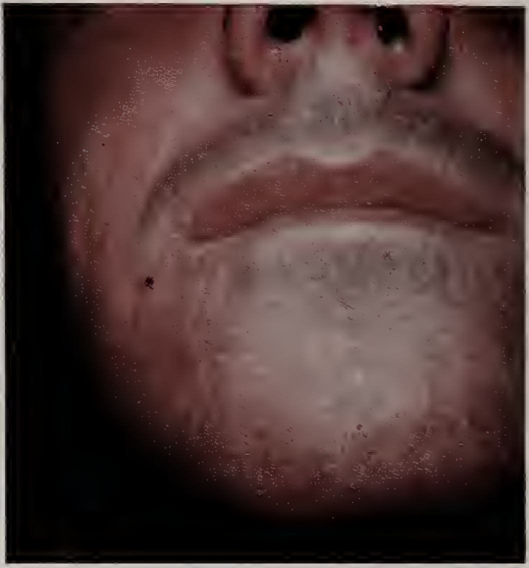
• Cardiac clinics for children are operated by the state Department of Health at general hospitals in Altoona, Bradford, Erie, Greensburg, Harrisburg, Johnstown, Lancaster, Lewistown, New Castle, Pottsville, Sayre, Scranton, Uniontown, West Chester, Wilkes-Barre, and Williamsport.

TOPICAL TREATMENT

TYPICAL RESULTS



PRIMARY PYODERMA



AFTER TREATMENT WITH 'NEOSPORIN' ANTIBIOTIC OINTMENT AND SALINE COMPRESSES

with **'NEOSPORIN'®** brand

Polymyxin B-Neomycin-Bacitracin

OINTMENT

Each gram contains:

'Aerosporin'® brand Polymyxin B Sulfate	5,000 Units
Zinc Bacitracin	400 Units
Neomycin Sulfate (equivalent to 3.5 mg. Neomycin Base)	5 mg.

Tubes of ½ oz. and 1 oz.

- clinically effective
- comprehensive bactericidal action against most Gram-negative and Gram-positive organisms, including Pseudomonas
- rarely sensitizes

For the eradication of infectious organisms in a wide range of dermatologic disorders: impetigo, ecthyma, pyodermas, sycosis vulgaris, paronychia, traumatic lesions, eczema, herpes and seborrheic dermatitis. Prophylactically, for protection against bacterial contamination in burns, skin grafts, incisions and other clean lesions, abrasions and minor cuts and wounds.

Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs.

Contraindication: This product is contraindicated in those individuals who have shown hypersensitivity to any of its components.

Complete literature available on request from Professional Services Dept. PML.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

Doctor,

Here is the Abbott anorectic program designed to meet the individual needs of your overweight patients.

ABBOTT

mood elevation

Abbott
Anorectic
Program

DESOXYN® Gradumet® (methamphetamine hydrochloride)

Smooth appetite control plus mood elevation.

The obese patient on a diet often has to battle depression as well as overweight. Desoxyn Gradumet helps the dieter in both battles by elevating the mood while it curbs the appetite. Thanks to the Gradumet, medication is smoothly released all-day from a single oral dose.

If she can't take plain amphetamine, put her on DESBUTAL® Gradumet

Calms anxieties; controls compulsive eating.

Desbutal Gradumet provides 2 drugs in 2 tablet sections, combined back to back to form a single tablet. One section contains Desoxyn to curb the appetite and lift the mood; the other contains Nembutal® (pentobarbital) to calm the patient and counteract any excessive stimulation.

Both drugs are released in an effective dosage ratio throughout the day.

controlled release

Not all long-release vehicles are the same. Here is why the Gradumet is different and what it means for your overweight patients.

The release action is purely physical and relies on only one factor common to every patient: gastrointestinal fluid. There is no dependence on enteric coatings, enzymes, motility, or an "ideal" ion concentration in the gastrointestinal tract.

Your patients get a measured amount of medication, moment by moment, throughout the day.

They are not subjected to ups and downs of drug release . . . or to erratic release from patient to patient . . . or to erratic release in the same patient from day to day.

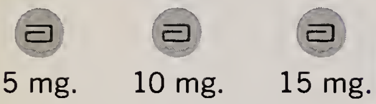
That's why the Gradumet provides controlled-release as well as long release.

Perhaps you saw the Gradumet model demonstration which shows that the release is entirely physical. When fluid is added, the drug in the outer ends of the channels dissolves. As fluid penetrates deeper into the channels, there is a continuous release of medication. The rate of release is rigidly controlled by the size and number of channels.

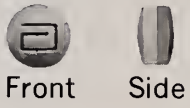
choice of 5 strengths

Abbott
Anorectic
Program

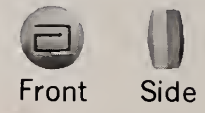
DESOXYN Gradumet
Methamphetamine Hydrochloride in Long-Release Dose Form



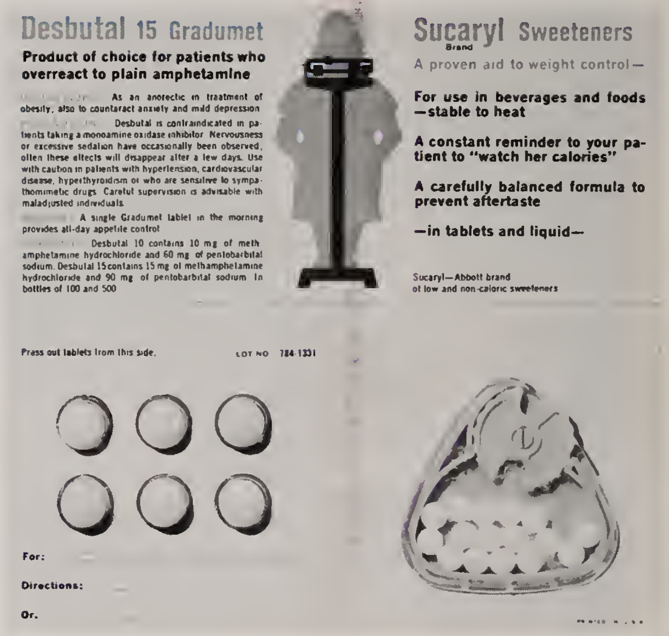
DESBUTAL 10 Gradumet
10 mg. Methamphetamine Hydrochloride,
60 mg. Pentobarbital Sodium



DESBUTAL 15 Gradumet
15 mg. Methamphetamine Hydrochloride,
90 mg. Pentobarbital Sodium



samples available



Desbutal 15 Gradumet

Product of choice for patients who overreact to plain amphetamine

As an anorectic in treatment of obesity, also to counteract anxiety and mild depression.

Desbutal is contraindicated in patients taking a monoamine oxidase inhibitor. Nervousness or excessive sedation have occasionally been observed, often these effects will disappear after a few days. Use with caution in patients with hypertension, cardiovascular disease, hyperthyroidism or who are sensitive to sympathomimetic drugs. Careful supervision is advisable with maladjusted individuals.

A single Gradumet tablet in the morning provides all-day appetite control.

Desbutal 10 contains 10 mg of methamphetamine hydrochloride and 60 mg of pentobarbital sodium. Desbutal 15 contains 15 mg of methamphetamine hydrochloride and 90 mg of pentobarbital sodium. In bottles of 100 and 500.

Press out tablets from this side. LOT NO 784-1331

For:

Directions:

Dr.

Sucaryl Brand Sweeteners

A proven aid to weight control—

For use in beverages and foods—stable to heat

A constant reminder to your patient to "watch her calories"

A carefully balanced formula to prevent aftertaste

—in tablets and liquid—

Sucaryl—Abbott brand of low and non-caloric sweeteners

Each sample contains 6 tablets and a filled Sucaryl® Sweetener dispenser. For a supply, write Abbott Laboratories or ask your Abbott man.

economy

Patients, in many cases, save enough to get five weeks of medication for the price of four, compared to other leading long-release anorectics.

CONTRAINDICATION: Desoxyn and Desbutal are contraindicated in patients taking a monoamine oxidase inhibitor.

PRECAUTIONS: Use with caution in patients with hypertension, cardiovascular disease, hyperthyroidism, old age, or those sensitive to sympathomimetic drugs or ephedrine and its derivatives. Careful supervision is advisable with maladjusted individuals.

ABBOTT

Gradumet—long-release dose form, Abbott: U.S. Pat. No. 2,987,445.
Sucaryl—Abbott brand of low and non-caloric sweeteners.

601060

WELCOME, NEW MEMBERS!

These M.D.'s have joined the State Society in recent months:

ALLEGHENY COUNTY:

Albert J. Bazo, 16 Brilliant Avenue, Pittsburgh 15215.
David Charles, Magee-Woman's Hospital, Pittsburgh 15213.
Cleon L. Cornes, 3811 O'Hara Street, Pittsburgh 15213.
Bernard L. Klionsky, Magee-Woman's Hospital, Pittsburgh 15213.
John A. Perri, 6837 Penn Avenue, Pittsburgh 15208.

BEDFORD COUNTY:

John L. Grow, M.D., 120 West John Street, Bedford 15522.

BRADFORD COUNTY:

Harold H. Chadwick,Wysox 18854.
James B. McQuillen, 418 South Wilbur Avenue, Sayre 18840.
William H. Sewell, Guthrie Clinic, Ltd., Sayre 18840.

CHESTER COUNTY:

Frederick H. Brace, 133 Grandview Road, Ardmore 19003.

CLARION COUNTY:

Lewis R. Varner, Box 158, Sligo 16255.

FRANKLIN COUNTY:

Richard O. Stader, Professional Arts Building, Chambersburg 17201.

JEFFERSON COUNTY:

Idilio J. Saldana, 402 West Mahoning Street, Punxsutawney 15767.

MONTGOMERY COUNTY:

Samuel L. DeLong, 223 Lancaster Avenue, Devon 19333.
Barbara A. DiSalvo, Magnolia Road, Easton 18042.
Carole L. Fetcho, Abington Memorial Hospital, Abington 19001.
Donald E. Holmberg, 457 Easton Road, Horsham 19044.
Charlotte T. Liu, Sunneytown Pike, North Wales 19454.
Isidore Mihalakis, 441 Seneca Street, Bethlehem 18015.
Thomas O. Orvald, 1245 Highland Avenue, Abington 19001.
Rachel Talman, 556 Woodlea Lane, Berwyn 19312.
Ulysses E. Watson, Norristown State Hospital, Norristown 19401.
Donald P. Yadusky, Lansdale Clinic, Lansdale 19446.
Warren L. Ziengenfus, III, 2109 Weber Lane, Norristown 19401.

MONTOUR COUNTY:

Gilbert L. Hendricks, Jr., Geisinger Medical Center, Danville 17821.
Fernando Pages, Danville State Hospital, Danville 17821.
Ubaldo P. Lopez, Jr., Danville State Hospital, Danville 17821.

NORTHAMPTON COUNTY:

H. Newton Olewiler, Jr., 2017 Westfield Terrace, Bethlehem 18018.
Ralph L. Shields, St. Luke's Hospital, Bethlehem 18015.

PHILADELPHIA COUNTY:

Jennifer A. Allcock, 251 East Bringhurst Street, Philadelphia 19144.
Peter J. Devine, 11740 Lanett Road, Philadelphia 19154.
Bernard J. Dlutowski, 9625 Frankford Avenue, Philadelphia 19114.
Mary E. Frank, 306 North Main Street, Doylestown 18901.
Celso-Ramon Garcia, 3400 Spruce Street, Philadelphia 19104.
Philip Goldfedder, 10007 Bridle Road, Philadelphia 19116.
Jerry Goosenberg, 100 East Colonial Street, Philadelphia 19120.
Philip D. Gordy, 1025 Walnut Street, Philadelphia 19107.
Augustin Ifarraguerri, 269 South Nineteenth Street, Philadelphia 19103.
Jay Jacoby, Jefferson Hospital, Philadelphia 19107.
Nicholas Karayannis, 336 Wayne Avenue, Lansdowne 19050.
James T. Kauders, 7021 North Fifteenth Street, Philadelphia 19126.
Noel Keane, 1700 Vine Street, Philadelphia 19103.
Arthur H. Keeney, Wills Eye Hospital, 1601 Spring Garden Street, Philadelphia 19130.
John E. Lambros, 5001 Frankford Avenue, Philadelphia 19135.
Elizabeth V. Lautsch, Temple University School of Medicine, Philadelphia 19140.
Harvey Lazofson, 6014 Oakland Street, Philadelphia 19149.
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(Continued on page 80.)

Malpractice Insurance Is a 'Must' for Physicians

Philadelphia Lawyers Explain Basic Factors of Coverage

FRANCIS E. SHIELDS, ESQ., AND EDWARD A. SAWIN, ESQ.,
FOR PEPPER, HAMILTON AND SCHEETZ, PMS LEGAL COUNSEL
Philadelphia, Pennsylvania

Thirty years ago, a patient facing surgery put his affairs in order, redrafted his will, and entered the hospital hopeful—but not fully confident—that the surgery might quickly restore his well-being.

Medical science and techniques have advanced to the point where patients no longer regard hospitalization and/or surgery as such fearful events. In the past, an unsuccessful result was usually accepted as "fate," but there is a tendency today to look for "someone to blame." Patients expect successful treatment as a matter of course.

Ironically—due in part to the advance of medical knowledge—patients now often regard an unsuccessful result as evidence of malpractice, regardless of whether or not malpractice is involved. Appropriate insurance for the physician has thus become as necessary to the doctor as automobile liability insurance is to the driver.

What happens to the physician not covered by malpractice insurance when a suit is brought against him? First, he must engage an attorney to defend him and prepare the case for trial. In addition to the attorney's fee, the physician will have to bear, personally, the expenses incurred by the attorney for such services as investigating the facts of the case, undertaking discovery proceedings, and engaging a medical expert to testify on behalf of the physician. If there is a verdict for the plaintiff, or if a settlement is agreed upon, the physician will be personally responsible for satisfying it.

Litigation in malpractice cases is often protracted. The physician without insurance must expect a large bill for legal services at the trial's end. Legal fees and costs are of course compounded if either litigant decides to appeal the result to a higher court. The uninsured physician is therefore confronted with having to pay large sums of money to defend himself, even though the final outcome of the trial may be in his favor.

The insured physician, on the other hand, has no litigation costs or attorneys' fees, all such expenses being borne by the insurance company—even though the suit may be entirely groundless. Also, to the extent of his coverage, the physician is not burdened with the obligation of satisfying, from his own assets, a compromise settlement or an unfavorable verdict.

Legal Experts

It is very important that the attorneys engaged by the insurance companies to defend the physician be highly competent, experienced specialists in malpractice defense litigation. The physician is confident when the man who will defend him has handled many such cases, developing a particular expertise in the field. (In this regard, it is important to note that many attorneys for *plantiffs* in such cases are also thoroughly experienced in the malpractice field.)

The uninsured practitioner not served by such a defense specialist lacks a distinct advantage, and even though the nonmalpractice lawyer he engages may be highly competent in his own specialty, he will have to learn malpractice "on the job," perhaps at the expense of an unfavorable verdict. Due to the extensive experience of such legal specialists in malpractice, the physician has a better chance that the verdict will be in his favor, or if it is not, that the judgment will not be exorbitant.

The proper policy coverage is necessary, also. First, the physician must determine what amount he needs; this involves several factors. Usually the physician who performs major surgery needs greater coverage than does the general practitioner, since a surgeon's negligence may cause substantial disabling injury. Serious injury can, of course, be sustained as the result of a general practitioner's error, but serious deleterious effects are more common in cases of negligence in relation to major surgery.

The physician should also take into consideration the earning power of his patients. For example, if, as a result of malpractice, a high-salaried executive loses substantial time from work or is unable to return to work at all, a high settlement would be a logical result. A patient entitled to recover damages will receive remuneration not only for pain and suffering, but for his past and future salary losses as well.

If a physician employs another physician, a nurse, or a laboratory technician, or if, in regard to treating his own patients, he gives orders to other physicians who are not his employees, he may be held liable (on the basis of the *respondeat superior* principle), for the negligent acts of such co-workers. He must therefore consider the possibility of more than one lawsuit and recovery as a result of treatment during the policy period.

In addition, of course, even if the physician practices alone, without employees, he must consider the possibility that he might be sued by two or more individuals for negligent acts occurring during the term of the policy. It is therefore important to have adequate coverage not only for each potential claim, but also in order to guard against the possibility that there might not be sufficient coverage if two or more claims arising from treatment during the policy period result in unfavorable verdicts. This is referred to as "aggregate coverage," as opposed to coverage on each claim.

Judgments on Increase

The physician should bear in mind that verdicts for plaintiffs are on the increase, and that if a claim is presented against him today and a suit instituted, it may be five years before the matter comes to trial. Probably the upward trend of such verdicts will continue.

Finally, the physician must consider the amount of the personal assets he seeks to protect.

Most malpractice policies contain nearly identical provision with regard to terms and conditions. The physician must be sure, however, that he is covered with regard to his particular type of practice. For example, the usual policy excludes coverage for shock therapy, use of x-ray equipment for therapy, and major surgery. If the physician requires coverage for any of these activities, he must be sure that they are specifically mentioned as covered, in the policy. Similarly, if the physician is in a partnership, this fact must be disclosed to the insurance agent, since partners are liable for other partners' acts performed in the course of the partnership's activities.

To summarize: it is absolutely essential for the practicing physician to have malpractice coverage, the individual requirements of the particular physician being thoroughly discussed with the insurance agent, to guarantee full and adequate protection.

AAP Urges M.D. Immunity In Child Abuse Reports

The American Academy of Pediatrics, in urging local programs to insure reporting of child maltreatment cases, said such programs should insure legal immunity for physicians or hospitals reporting suspected cases.

In a public statement, the academy strongly supported central registers in local programs, to facilitate detection of abuse cases "since parents of abused children frequently take them (children) to different physicians or hospitals after each episode or attack to avoid identification with previous episodes."

Focus on Accidents

The impact of environment on accidental injuries and fatalities was assessed at the third American Medical Association Congress on Environmental Health Problems in Chicago, April 4-5.

Pennsylvanians participating in the program included Francis C. Jackson, M.D., of Pittsburgh, chairman of the AMA Committee on Disaster Medical Care, and William H. Forster, director of engineering and research, Communications and Electronics Division, Philco Corporation, Philadelphia.

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(Continued from page 77.)

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James H. Taylor, X-ray Department, Nazareth Hospital, 2601 Holme Avenue, Philadelphia 19152.

Janet K. A. Tenley, Children's Hospital, Philadelphia 19146.

Edward E. Wallach, 3400 Spruce Street, Philadelphia 19104.

Martin R. Weber, Northeast Medical Center, Welsh Road and Roosevelt Boulevard, Philadelphia 19152.

Favors Policy Statements By Presidents-Elect

A puzzling feature of Pennsylvania Medical Society elections is that the president-elect is chosen with no consideration at all being given to his program if elected. The address of the president-elect, given the day after his election, is the first inkling the delegates have of what he has in mind for the Society, in what direction he thinks it should move, what goals he will strive to achieve.

At times, one gets the impression that the president-elect himself has not given it much thought until the night before his speech. This might be a feature of all medical societies; it is certainly true of all county societies with which I am familiar and it is a mark of the AMA. (Witness the surprise and chagrin with which some delegates greeted Jim Appel's inaugural address, and this as president, not as president-elect!)

It is not clear why this topsy-turvy state of affairs should be. One would expect, in a democratic organization, the views of aspirants to high office to be known before they are elected, else how can there be an informed electorate? One convenient argument to explain the Alice-in-Wonderland situation is the fiction that in the Pennsylvania Medical Society "the office seeks the man." There are elaborate rituals, sanctified in the By-laws, that one does not go about trying to get elected. In theory, there is supposed to descend on the delegates some sort of revelation so that they will by mystical insight *know,* with absolute certainty, that *this is the man.*

Aside from the obvious absurdity of the premise that delegates can divine what is in a candidate's mind, this argument is refuted by the facts. There are seekers after office, and a delegate's feeling that "this is the man" is less intuitive than it is the result of a campaign on the candidate's behalf. I believe campaigns are quite proper, but I contend that there should be some sort of campaign on issues before the Society and the medical profession, and not a poppycock popularity contest, decided ostensibly on the basis of the length of the candidates *curriculum vitae* and actually on the influence of his friends.

A second argument in favor of the present system might be that the office of president is largely ceremonial, and not important in policy decisions which are supposed to be decided by the House of Delegates but, since it meets only once a year, are actually handled for the most part by the Board of Trustees. My observation has been, however, that the Board is scrupulous about hewing to the line laid down by the House of Delegates, and the House, in turn, is strongly influenced by the president.

This comes about, sometimes, without the delegates really knowing that they have voted in a new policy. There is an almost automatic approval of the addresses of the president and president-elect, and debate before the reference committee on reports of officers is rarely as brisk as that over some resolution that might be concerned with a similar subject. And when the delegates cheerfully vote to approve the addresses of the officers they may well wake up later to find they have endorsed who knows what flight of fancy or course of action. Thus the president has real influence on the affairs of the Pennsylvania Medical Society.

There are clear and compelling reasons why the opinions of candidates for the office of president-elect should be known prior to election. The first step to this end, it seems to me, should be amendment of the By-laws by striking Chapter V, Section 3 which says, "Any person known to have solicited votes for himself or sought after any office within the gift of this Society shall be ineligible for any office for two years." Unless this is done, the situation will remain as it is now, hopeless but not serious.

O. K. Stephenson, M.D.,
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In My Opinion . . .

Childhood Play and Later Sexual Adjustment

In most reports on the genesis of homosexuality, emphasis is placed on the disturbed quality of child-parent relationships, especially on that with the mother. There is little doubt that these relationships are important, but from studies made of the male homosexual, I feel quite strongly that we neglect consideration of experiences that are of equal, if not greater importance, than the parental relation: the play experience with children of the same age in the toddling and preschool period.

Play with one's peers during this period involves much running, falling, embracing, tumbling, and scrambling around. There is close and intimate physical contact in the hugging, wrestling, and rolling around of this rough and tumble play and from it not only does the child develop the basic agility and coordination on which later athletic ability is based, but as a result of the close and embracing contacts, he acquires the comforting feeling of "belonging."

In mixed play groups the boys accept the girls and soon accord them special privilege, but seldom exclude them completely from the early scrambling play. Basic protective attitudes toward girls grow out of this and become a lasting part of the male outlook.

In many homosexuals studied, evidence of maladjustment was invariably apparent when they first started school; deprivation of participating in peer activities was consistently found and seemed to be more of a contributing factor to the deviation than was disturbed parental relations.

Warm, affectionate, acceptant relations with parents are desirable in early life, but the best basis for effective interpersonal relations is ample play with peers in the toddling and preschool period. Such play opportunity may contribute to the reduction of many patterns of maladaptation, especially homosexuality.

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Samuel B. Hadden, M.D.,
Wynnewood.

Science without religion is lame; religion without science is blind.
Albert Einstein

P.R.N.

We've found that even the world of association work is a small one. For a few minutes, one day recently, our managing editor had the queer feeling he was serving two masters. Added to that was the unexpected sisterly glow which a State Society secretary experienced.

The latter worthy was surprised, on that March day, to answer the phone and hear the voice of her sister, an account executive for a New York advertising firm. It seems that one of the agency's accounts—the Pennsylvania Bankers' Association—wanted to place a trust advertisement in Pennsylvania Medicine.

The secretary (radiant after the surprise phone chat with her sister), turned the matter over to Richard Omohundro, P.M. managing editor, who not only was pleased about the ad, but rather incredulous as to the advertiser.

Scarcely three weeks previously he had agreed to accept a new position—with none other than the Pennsylvania Bankers' Association.

* * *

In case you've noticed a marked similarity between some of our articles and certain ones appearing subsequently in *Medical Tribune,* there's a good (or bad) reason for the seeming coincidence. *We* do the "leg work," interviewing, writing, and/or editing, we publish the article, and a month or two later we see an almost exact duplicate of the item emblazoned on the pages of *M.T.* This is probably some kind of compliment, but we'd value it more highly if Pennsylvania Medicine received published credit for original presentation of the material.

* * *

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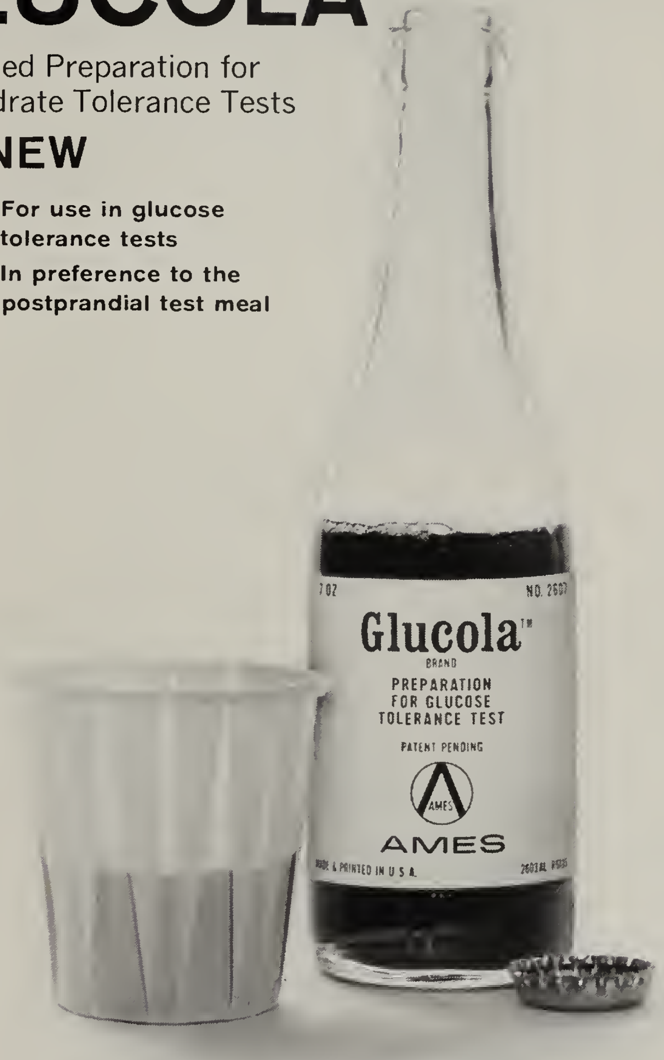

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PENNSYLVANIA MEDICINE

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A MULTIPURPOSE MOBILE UNIT

"MAX" is quickly available for emergency monitoring, diagnosis—even surgery. The designer and a coworker describe the device — Page 38

THE M.D. WHO MIGHT HAVE SAVED WASHINGTON

Outnumbered by his colleagues on the case, Dr. Dick had to forego the procedure that might have added years to our first President's life — Page 53

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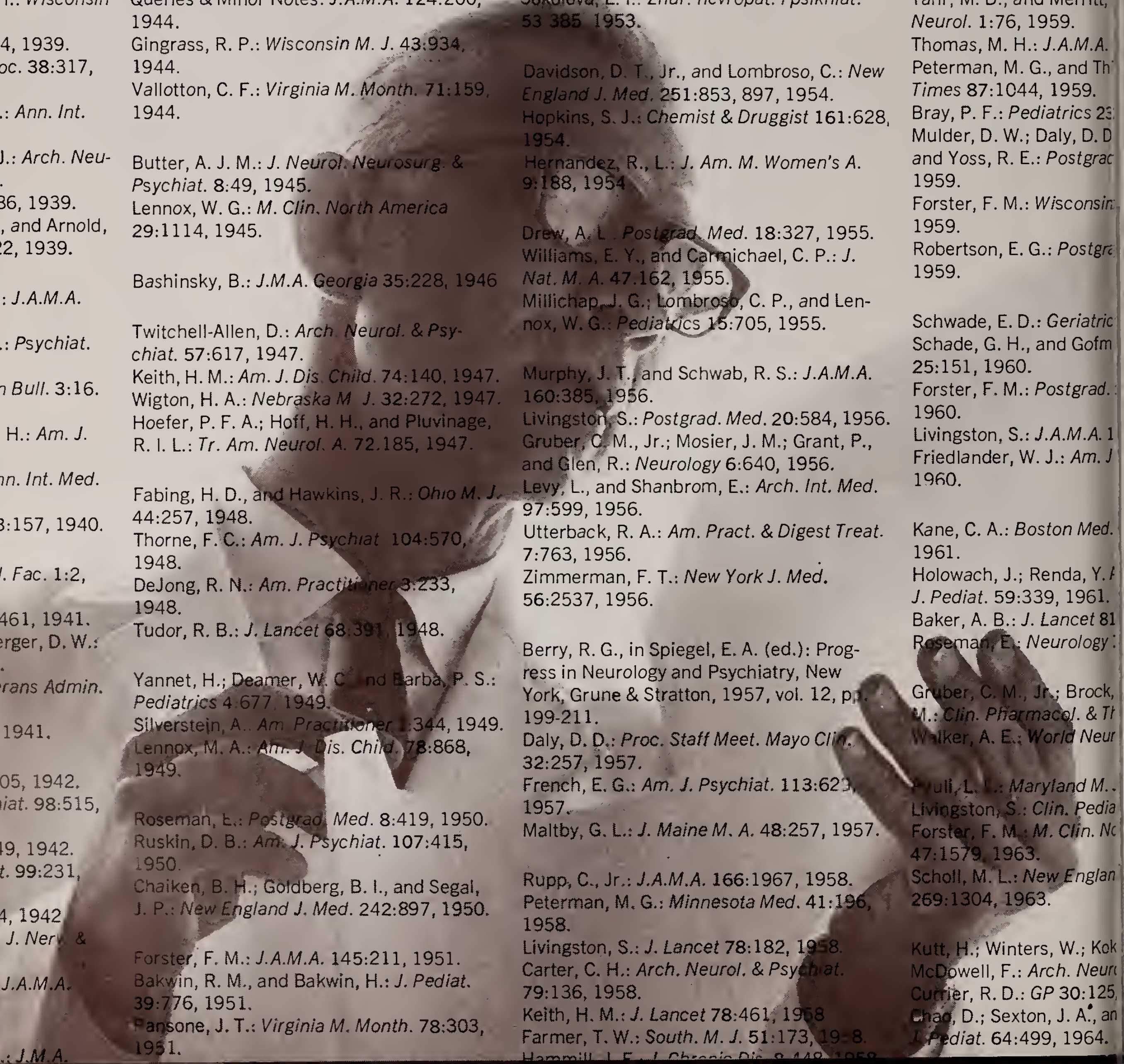

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LATE News HIGHLIGHTS

June, 1966

AMA MEETS IN CHICAGO JUNE 26-30

■ On Sunday, June 26, for the one hundred fifteenth time, the American Medical Association will convene, bringing together 45,000 persons, including 15,000 physicians . . . **James Z. Appel, M.D.,** Lancaster, 1965-66 president, will relinquish the gavel to **Charles L. Hudson, M.D.,** Cleveland, president-elect . . . Speaker of the House of Delegates **Milford O. Rouse, M.D.,** Dallas, Texas, will call the meeting to order at 3 P.M. in Arie Crown Theater, McCormick Place . . . Scientific programs and industrial exhibits will also be found at McCormick Place, where general registration will be held in the lower lobby beginning at 10 A.M. Sunday, and continuing from 8:30 A.M. to 5 P.M. on subsequent days . . . Scientific subjects scheduled include emphysema, burns, mysterious fevers, headaches, population expansion, community hospitals, and coronary care units.

PMS LAYS CORNERSTONE FOR ITS NEW BUILDING

■ President **William B. West, M.D.,** with other PMS officials, on May 18 laid the cornerstone for the new State Society building near Harrisburg. Members of the Board of Trustees and Councilors, State Society staff personnel, and other guests, witnessed the ceremony. Completion of the structure is expected in late summer.

→

Past President Wilbur E. Flannery, President William B. West, and Chairman of Trustees and Councilors Clarence J. McCullough line up to take turns with trowel, in cornerstone ceremony at new PMS building.

DOCTORS' DOINGS

■ Honored at the Detroit meeting of the Industrial Medical Association were **Drs. Robert B. O'Connor** and **C. Craig Wright,** both of Pittsburgh . . . **Robert J. Shoemaker, M.D.,** formerly of Pittsburgh, is the new superintendent of Woodville State Hospital . . . **Drs. Jesse Littleton,** Sayre, and **Alexander J. Michie,** Philadelphia, participated in the annual meeting of The State Medical Society of Wisconsin . . . Elected to three-year terms on the Delaware Valley Diabetes Association's board of governors were **Drs. Stanley N. Cohen** and **George C. Kyle,** both of Philadelphia . . . Recipient of the 1966 Ortho Medical Award of the American Fertility Society is **Luigi Mastroianni, Jr., M.D.,** Philadelphia . . . **William U. McClenahan, M.D.,** Chestnut Hill, received the Jacob Ehrenzeller Award for outstanding achievement and service in the medical field . . . New Fellows of the American College of Physicians are **Drs. Myron M. Rubin, John H. Esbenshade, Jr., John L. Grosh,** and **William A Schaeffer,** all of Lancaster . . . **William B. Tollen, Ph.D.,** state commissioner of public assistance, died May 5 while on duty in the dispensary at Indiantown Gap Reservation.

P.M. HAS A NEW EDITOR

■ Coming to the State Society with an impressive background in publications work, **Mr. Francis G. ("Bud") Martin** took on the duties of managing editor of Pennsylvania Medicine May 2, succeeding **Richard Omohundro**. In the accompanying photograph, Mr. Martin discusses P.M. matters with **Mr. Lester H. Perry** (right), executive director of PMS. Mr. Martin, a graduate of Franklin and Marshall College, Lancaster, is married and lives near Millersville.

FEE CONCEPTS DISCUSSED

■ At its May meeting, the PMS Board of Trustees and Councilors discussed usage of the words "prevailing, reasonable, customary and usual" and the semantics involved with their use in medicare.

Also discussed was the concept of reimbursement for doctors serving on review committees under Part B of medicare.

Details of these and other Board Action items will be summarized in a future issue of P.M.

NEWS FROM WASHINGTON

■ Close cooperation between the Social Security Administration and the AMA has resulted in a one-sheet, easily-filled-out form for older people and physicians to use in requesting payment under medicare . . . A psychiatric rehabilitation program, "Project Anchor," has been set up by the Veterans Administration, using home-community volunteers to help former mental patients among veterans adjust when they return home . . . The Food and Drug Administration has restricted labeling and advertising claims for "coronary vasodilators"; manufacturers of preparations containing nitrates or nitrites are prohibited from claiming effectiveness of such drugs for any heart condition other than angina pectoris.

THIS MONTH

■ AMA CONVENTION, CHICAGO, JUNE 26-30.

NEXT MONTH

EXTENSIVE JEJUNO-ILEAL RESECTION

Two Philadelphia physicians report a case in which, after all but 30 cm. of the jejunum and ileum underwent resection, the patient developed numerous complications, but has survived for six years.

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JUNE, 1966 VOLUME 69 NUMBER 6

ORIGINAL PAPERS

EVALUATING EFFECTS OF METHYLDOPA *Drs. James C. Hutchison, Richard R. Vanderbeek, and Paul M. Roediger*

Clinical and metabolic actions of the drug are appraised by means of blood pressure and blood chemistry analyses, and investigation of side effects. Page 25.

ANEMIC RETINOPATHY *Lowell M. Weiss, M.D.*

Not to be overlooked among the several possible causes of retinal hemorrage is the possibility of anemia. Page 35.

RESUSCITATION—1966 *Drs. Joel J. Nobel and John Y. Templeton, II*

A newly-designed mobile unit facilitates prompt bedside or operative care of the patient in cardiopulmonary emergent status. Page 38.

CHRONIC PROSTATITIS *Ralph J. Miller, M.D*

One of the commonest and least understood conditions in male patients is delineated by a urologist, who makes recommendations. Page 44.

PRIMARY OMENTAL TORSION IN CHILDREN *Drs. George T. R. Fahlund and William P. Smedley*

Often erroneously diagnosed as acute apppendicitis, this syndrome responds well to surgery and has an excellent prognosis. Page 47.

COMPLETE ACUTE CORONARY CARE *Morton I. Silverman, M.D.*

Part of a dynamic nationwide trend, the plan for maximum care of heart patients at Allentown Hospital is described. Page 55.

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Side effects: Drowsiness may occur and, rarely, ataxia, usually controlled by decreasing the dose. Allergic or idiosyncratic reactions are rare, generally developing after one to four doses. Mild reactions are characterized by an urticarial or erythematous, maculopapular rash. Acute nonthrombocytopenic purpura with peripheral edema and fever, transient leukopenia, and a single case of fatal bullous dermatitis after administration of meprobamate and prednisolone have been reported. More severe and very rare cases of hypersensitivity may produce fever, chills, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, anaphylaxis, stomatitis and proctitis. Treatment should be symptomatic in such cases, and the drug should not be reinstituted. Isolated cases of agranulocytosis, thrombocytopenic purpura, and a single fatal instance of aplastic anemia have been reported, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity has been reported, usually after excessive meprobamate dosage. Suicidal attempts may produce lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

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THIS MONTH

Dr. Georges Will Help Implement Medicare Law

The recently-appointed assistant to the Secretary of Public Welfare for Medical Affairs, Thomas W. Georges, Jr., M.D., Philadelphia, reports that medicare preparations thus far in Pennsylvania have progressed fairly smoothly.

"This is largely due to the advice, assistance, support, and guidance made available by the Pennsylvania Medical Society and other professional and institutional associations," he stated.

"I have been surprised," he went on, "to discover how many millions of dollars the state spends each year in support of hospital, medical, and dental care for the needy."

Public Health Responsibilities

In the implementation of medicare, the new appointee (a specialist in public health), is in charge of state certification of hospitals, and consultation with and coordination of them. He also supervises these activities in relation to extended care facilities, home health agencies, and independent laboratories.

Dr. Georges holds a master's degree in public health from Yale University. In Philadelphia, his father, Thomas W. Georges, Sr., M.D., is a practicing physician and his sister, Ferne Georges, M.D., is a public health physician.

Early 'Rounds' with Father

The younger Dr. Georges' interest in medicine began in childhood, when he accompanied his father on rounds. It attained academic status when he entered Jefferson Medical College, residency in which was followed by studies at Yale which led to a master's degree. His thesis subject was *Current Trends in the Treatment of Tuberculosis.*

Philadelphia Career

His next affiliation was as public health physician in Philadelphia's Department of Health Community Health Services, where he was supervisor until 1964.

TAKES MEDICARE SPOT—Thomas W. Georges, Jr., M.D., Philadelphia physician recently appointed to a key medicare spot in the state Department of Public Welfare, poses with his wife, Jody, their daughter, Mary Jane, and her favorite saddle horse.

He also was coordinator of clinical activities for the city's Community Health Services, in cooperation with the Fife-Hamill Memorial Health Center and the Henry Phipps Institute.

He has been a member of the Medical Care Committee of the Philadelphia Urban League, the executive board of the National Association for the Advancement of Colored People, and the executive committee of the Pennsylvania Prison Society. In the latter organization, he participated in attempts to obtain bail bonds for persons who, having been arrested or indicted, were awaiting trial.

In 1964, recognition as a leader in the public health field brought Dr. Georges an appointment as assistant professor of community medicine at the Temple University Health Sciences Center. Currently on leave from that post, he hopes eventually to return to Temple and resume his studies in community medical care administration.

He and his wife Jody, whom he met during undergraduate years at Howard University, have a three-year-old daughter, Mary Jane.

Hershey Scholarship No. 1

The first scholarship to be set up at the medical school at Hershey took form when an anonymous donor contributed $3,000 toward the education of some member of the first class of students.

George T. Harrell, Jr., M.D., director of the Medical Center and dean of the College of Medicine, has been authorized by the benefactor to decide which young person shall receive the award.

September, 1967, is matriculation month for the first group of students.

Doctor,

Here is the Abbott anorectic program designed to meet the individual needs of your overweight patients.

ABBOTT

mood elevation

DESOXYN® Gradumet® (methamphetamine hydrochloride)

Smooth appetite control plus mood elevation.

The obese patient on a diet often has to battle depression as well as overweight. Desoxyn Gradumet helps the dieter in both battles by elevating the mood while it curbs the appetite. Thanks to the Gradumet, medication is smoothly released all-day from a single oral dose.

If she can't take plain amphetamine, put her on DESBUTAL® Gradumet

Calms anxieties; controls compulsive eating.

Desbutal Gradumet provides 2 drugs in 2 tablet sections, combined back to back to form a single tablet. One section contains Desoxyn to curb the appetite and lift the mood; the other contains Nembutal® (pentobarbital) to calm the patient and counteract any excessive stimulation.

Both drugs are released in an effective dosage ratio throughout the day.

controlled release

Abbott
Anorectic
Program

Not all long-release vehicles are the same. Here is why the Gradumet is different and what it means for your overweight patients.

The release action is purely physical and relies on only one factor common to every patient: gastrointestinal fluid. There is no dependence on enteric coatings, enzymes, motility, or an "ideal" ion concentration in the gastrointestinal tract.

Your patients get a measured amount of medication, moment by moment, throughout the day.

They are not subjected to ups and downs of drug release . . . or to erratic release from patient to patient . . . or to erratic release in the same patient from day to day.

That's why the Gradumet provides controlled-release as well as long release.

Perhaps you saw the Gradumet model demonstration which shows that the release is entirely physical. When fluid is added, the drug in the outer ends of the channels dissolves. As fluid penetrates deeper into the channels, there is a continuous release of medication. The rate of release is rigidly controlled by the size and number of channels.

choice of 5 strengths

Abbott
Anorectic
Program

DESOXYN Gradumet

Methamphetamine Hydrochloride in Long-Release Dose Form

5 mg. 10 mg. 15 mg.

DESBUTAL 10 Gradumet

10 mg. Methamphetamine Hydrochloride,
60 mg. Pentobarbital Sodium

Front Side

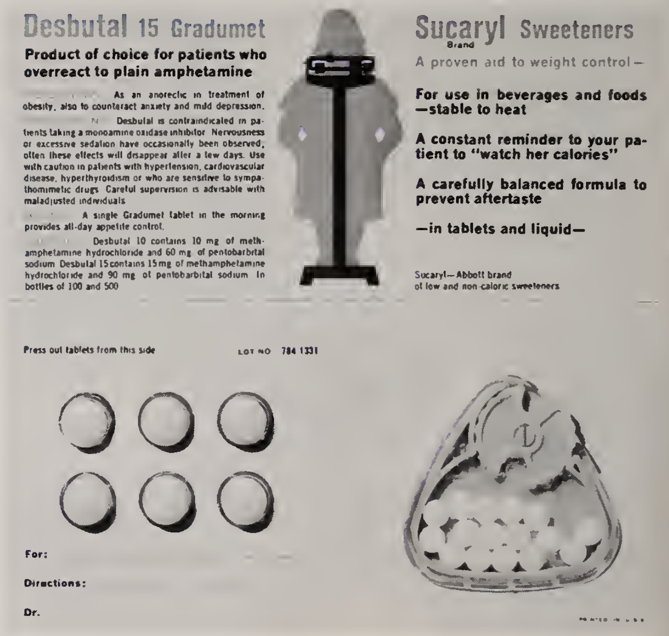
DESBUTAL 15 Gradumet

15 mg. Methamphetamine Hydrochloride,
90 mg. Pentobarbital Sodium

Front Side

samples available

Each sample contains 6 tablets and a filled Sucaryl® Sweetener dispenser. For a supply, write Abbott Laboratories or ask your Abbott man.



Desbutal 15 Gradumet

Product of choice for patients who overreact to plain amphetamine

As an anorectic in treatment of obesity, also to counteract anxiety and mild depression.

Desbutal is contraindicated in patients taking a monoamine oxidase inhibitor. Nervousness or excessive sedation have occasionally been observed, often these effects will disappear after a few days. Use with caution in patients with hypertension, cardiovascular disease, hyperthyroidism or who are sensitive to sympathomimetic drugs. Careful supervision is advisable with maladjusted individuals.

A single Gradumet tablet in the morning provides all-day appetite control.

Desbutal 10 contains 10 mg. of methamphetamine hydrochloride and 60 mg. of pentobarbital sodium. Desbutal 15 contains 15 mg. of methamphetamine hydrochloride and 90 mg. of pentobarbital sodium. In bottles of 100 and 500

Sucaryl Brand **Sweeteners**

A proven aid to weight control—

For use in beverages and foods —stable to heat

A constant reminder to your patient to "watch her calories"

A carefully balanced formula to prevent aftertaste

—in tablets and liquid—

Sucaryl—Abbott brand of low and non-caloric sweeteners

Press out tablets from this side LOT NO 784 1331

For:

Directions:

Dr.

economy

Patients, in many cases, save enough to get five weeks of medication for the price of four, compared to other leading long-release anorectics.

CONTRAINDICATION: Desoxyn and Desbutal are contraindicated in patients taking a monoamine oxidase inhibitor.

PRECAUTIONS: Use with caution in patients with hypertension, cardiovascular disease, hyperthyroidism, old age, or those sensitive to sympathomimetic drugs or ephedrine and its derivatives. Careful supervision is advisable with maladjusted individuals.

ABBOTT

Gradumet—long-release dose form, Abbott: U.S. Pat. No. 2,987,445.
Sucaryl—Abbott brand of low and non-caloric sweeteners.

601060

Alumni Conference At Penn June 17

Alumni and faculty of the University of Pennsylvania School of Medicine and the Division of Graduate Medicine will join the Graduate Hospital staff and exinterns and exresidents of university-affiliated hospitals for an alumni clinical conference on Friday, June 17.

The morning session (10 A.M.–12 M.) will be devoted to "Recent Advances in the Therapy of Infectious Diseases." Afternoon seminars (2–5 P.M.) will be concerned with obstetrics-gynecology, psychiatry, pediatrics, medicine, neurology-neurosurgery-neuroradiology, and surgery.

Registrations will begin at 9:30 A.M. in the lobby of the Maloney Building, Thirty-sixth and Spruce Streets; (there is no registration fee). At 12:15, a complimentary luncheon will be served in the Christian Association Building, Thirty-sixth Street and Locust Walk.

Dinner in the University Museum will be preceded by cocktails at 5:30 P.M. Dinner reservations are $7.50 per person.

For additional information, write the Medical Development Office, 320 South Thirty-fourth Street, Philadelphia 19104.

WOMAN'S GREAT WOMAN—On her eighty-ninth birthday April 7, Catharine Macfarlane, M.D., emeritus professor of gynecology at Woman's Medical College, was honored for her lifetime of service and her outstanding research in cancer. Shown with the guest of honor are Glen R. Leymaster, M.D., WMC president, and Mrs. John B. Kelly, vice-president of the college's board of corporators.

JEFFERSON GIANTS—Fifty-two years of leadership are represented by J. Parsons Schaeffer, M.D., right, shown with Mrs. Schaeffer, and Andrew J. Ramsay, Ph.D., pictured with Mrs. Ramsay. The occasion was that of the presentation, by the Jefferson Medical College Class of 1966, of an oil portrait of Dr. Ramsay, who in 1958 succeeded Dr. Schaeffer as head and director of the Daniel Baugh Institute of Anatomy at the college. Dr. Schaeffer was appointed to the post in 1914.

Licensure Board Action on Professional Associations

The State Board of Medical Education and Licensure has approved several regulations concerning professional associations.

Charles B. Hollis, M.D., chairman, reports that the following will apply until "experience dictates more comprehensive rules and regulations":

1. The Articles of Association described in Section 5 shall also be filed with the Board in complete compliance with the Section. (Refers to prothonotary of the county court.)
2. The name of a professional association must be acceptable to the State Board, State Medical Society, and the county medical society of the county in which its major office is situated.
3. In addition to the periodic reporting of changes of personnel, etc. (Section 5) an annual or biennial registration comprising items of pertinent information to be required by the board and the payment of a fee to be determined by the Revenue Department (or other) will be instituted.

Further details will be forthcoming later.

New Temple Dean

Appointed dean of the College of Allied Health Professions planned for the Temple University School of Medicine is Dr. Aaron L. Andrews, who has been assistant executive director for administration of the National Commission on Community Health Services, Inc.

DR. ANDREWS

In announcing the appointment, Dr. Millard E. Gladfelter, president of Temple, characterized Dr. Andrews as one of the best qualified individuals in the United States to take on the new task.

Prior to joining the National Commission in February, 1964, Dr. Andrews headed the establishment and development of the Division of Allied Health Sciences at the Indiana University School of Medicine.

- Pennsylvania has forty-three species of mosquitoes.

Sustained circulatory, respirato and cerebral stimulation for th

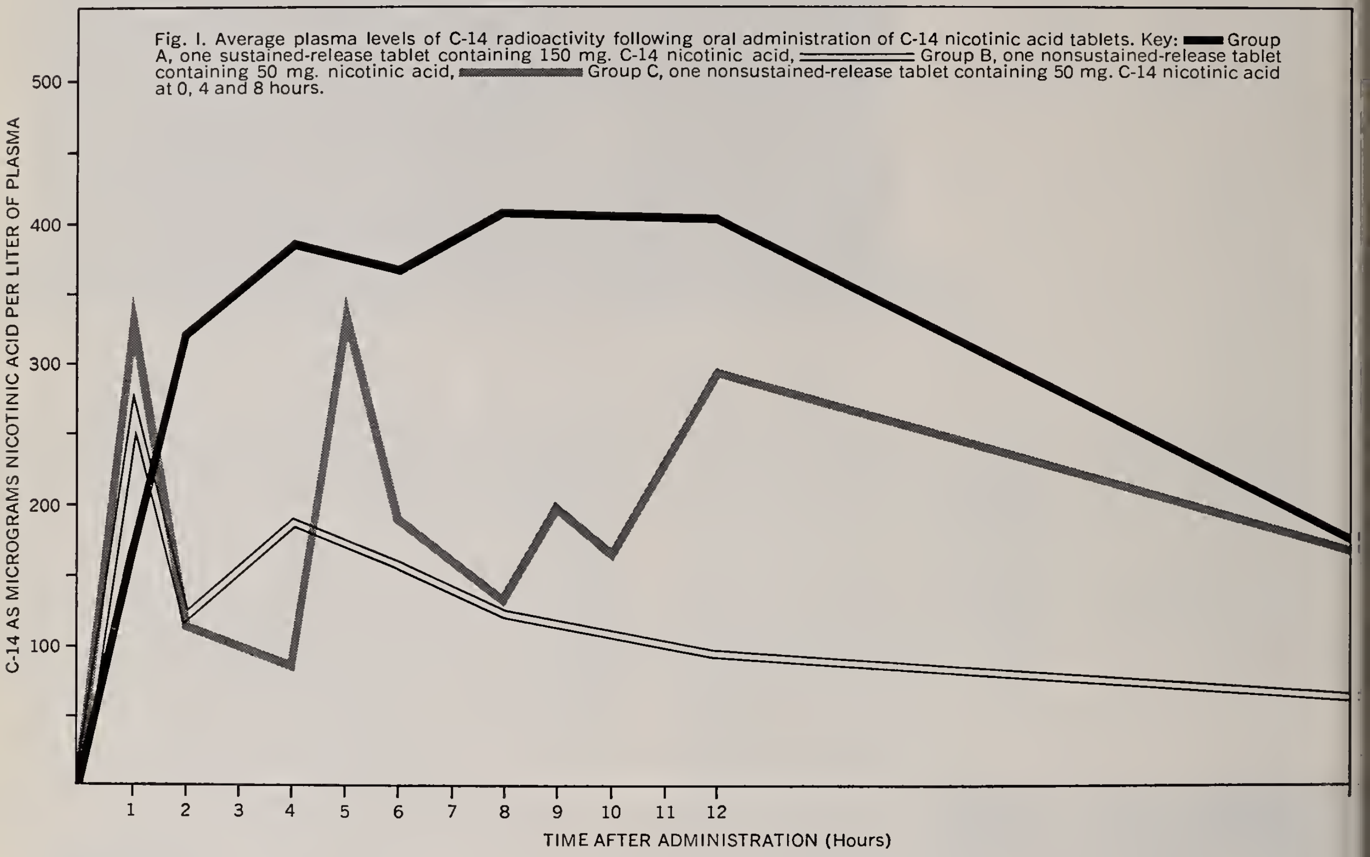


Fig. I. Average plasma levels of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═ Group B, one nonsustained-release tablet containing 50 mg. nicotinic acid, ▨ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

(fewer absent doses by absent-minded patients)

Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated

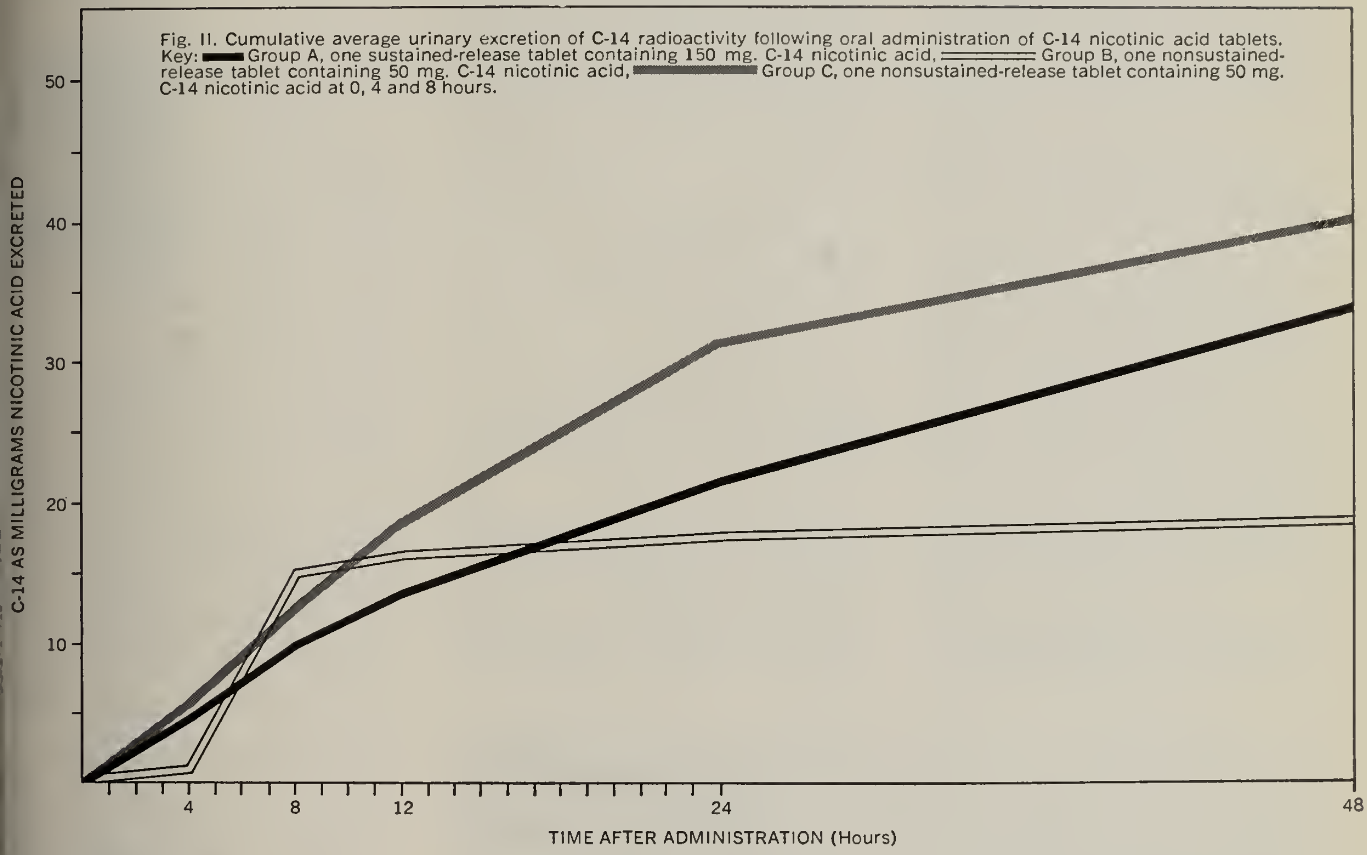


Fig. II. Cumulative average urinary excretion of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═ Group B, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid, ▬ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

C-14 AS MILLIGRAMS NICOTINIC ACID EXCRETED
50
40
30
20
10
4
8
12
24
48
TIME AFTER ADMINISTRATION (Hours)

less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

"First with the Retro-Steroids"
PHILIPS ROXANE LABORATORIES
Division of Philips Roxane, Inc., Columbus, Ohio
A Subsidiary of Philips Electronics and
Pharmaceutical Industries Corp.

Geroniazol® TT
nicotinic acid 150 mg., pentylenetetrazol 300 mg.
Tempotrol® Time Controlled Tablet

Few State Communities Have Qualified Investigators for 'Suspicious' Deaths

Although medicolegal institutes have for hundreds of years played leading roles in educating physicians, lawyers, toxicologists, and others in matters related to the investigation of sudden, unexplained deaths, Pennsylvania lags in setting up adequate facilities for handling suspicious cases.

With its antiquated coroner system, the state is permitting scores of unqualified persons to be responsible for —or to ignore—probes into the circumstances surrounding unexpected, violent deaths. Some of these coroners have come from the ranks of steelworkers, grocery store clerks, and funeral directors.

One exception to the deplorable situation in most Pennsylvania localities is the modern "medical examiner" system in Philadelphia County, whereby a professionally-oriented appointee, rather than a beneficiary of political plums, supervises the investigation of suspicious deaths.

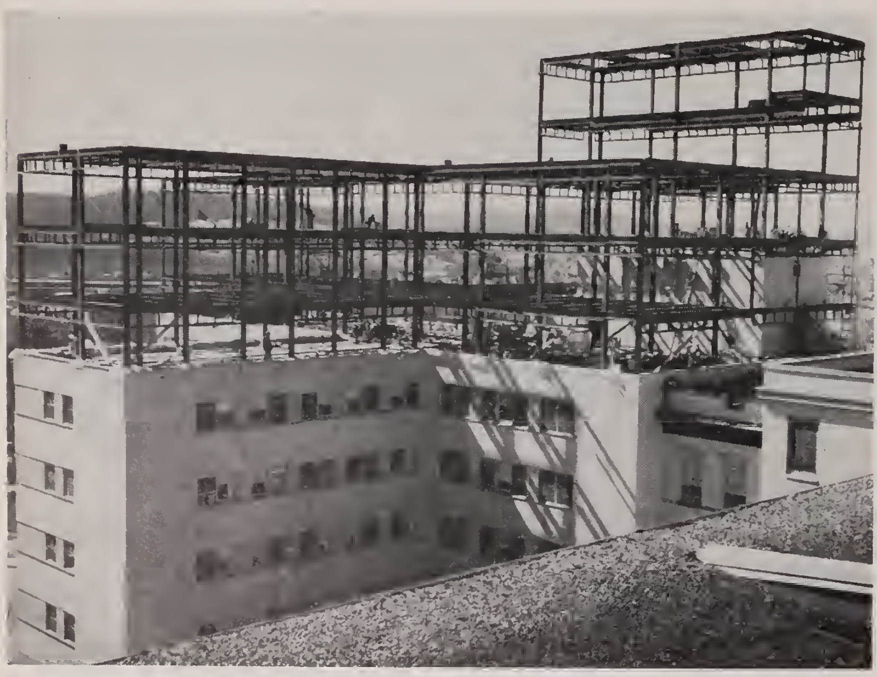
"Philadelphia County has an outstanding medical examiner system employing five trained forensic pathologists, a Ph.D. forensic toxicologist, several trained medical technicians and technologist, a trained medical photographer, and numerous other skilled personnel," writes Cyril H. Wecht, M.D., LL.B., of Duquesne University School of Law. "In addition, Philadelphia County is actively involved in teaching programs in local medical and law schools, and is engaged in numerous research projects with private and governmental agencies."

It is true, of course, that in some of the other 66 counties, when the coroner decides to have a postmortem examination conducted, a reasonably good job is done by local hospital pathologists. According to Dr. Wecht, these persons are, however, the first to acknowledge their lack of training and experience in the highly specialized field of forensic pathology.

"In complex cases in which it becomes necessary to apply principles of the forensic sciences, the hospital pathologist who is unaccustomed to dealing with medicolegal deaths may commit grave errors," Dr. Wecht points out.

Even in counties where hospital pathologists have expressed willingness to perform medicolegal autopsies for the coroner, the number of such autopsies is low. Authorities have estimated that 20-30 percent of all deaths should be medicolegally investigated; of that percentage, as many as half should be subjected to autopsies and other postmortem studies.

Dr. Wecht's disclosures, in the *Newsletter* of the Pennsylvania Academy of Sciences, imply that many more deaths within the state may be due to other than "natural causes" than the number on record as having been officially investigated for foul play.



CONTINUED STORIES—Steelwork heightens a wing of the Foss Clinic at The Geisinger Medical Center, Danville. Completion of the addition is expected in January, 1967, substantially expanding clinic facilities.

M.D.'s: Be Specific In Library Requests

About thirty requests per week from physicians seeking scientific information are handled by the library of the Milton S. Hershey Medical Center, which recently fell heir to a wealth of material formerly under the aegis of the PMS reprint library.

Because many inquiries fail to pinpoint precisely what physicians want, however, the average time required to handle them is an hour and fifteen minutes. This could be markedly cut back, says Fred D. Bryant, library director, if appeals for information were uniformly specific. For example, if a surgeon desires material on cryogenics in surgery, he should specify which organs are to be involved in the procedure. Or if the field is geriatrics, the practitioner should state on what particular aspect—e.g., gerodontics—he needs information.

Other guidelines Mr. Bryant outlines which will facilitate and accelerate library service are:

1. Designate what languages you read, or make clear that articles must be in English.
2. State how far back in time the search should extend. (The library does not make exhaustive literature searches for people doing research or writing papers or theses.)
3. Allow ample time. The National Library of Medicine must be contacted for information not available at Hershey, a process requiring two to three weeks.
4. Give author, title, publication name, and issue date—this assures you of same-day service.
5. Use the medical library *nearest* you, for the speediest service.

- A multi-million dollar life sciences building has been completed at The Pennsylvania State University, and laboratories and classrooms are now in use.

M.D.'s in The News

George A. Silver, M.D., a native Philadelphian and an alumnus of Jefferson Medical College, has been appointed Deputy Assistant Secretary for Health and Scientific Affairs of the federal Department of Health, Education, and Welfare.

DR. LONDON

W. Thomas London, M.D., Wyncote, has been appointed research physician at The Institute for Cancer Research, Philadelphia. He will study metabolic changes that may precede diseases such as cancer, and those taking place in cancer patients. Dr. London has served the National Institutes of Health, and the medical colleges of George Washington and Cornell universities.

As visiting professor at Middlesex Hospital, New Brunswick, New Jersey, and at Mercy Hospital, Long Island, **Bernard L. Segal, M.D.,** Philadelphia, lectured on "Bedside Diagnosis of Heart Disease" and on "Recent Advances in Cardiac Surgery."

Among honorable mention winners in the 1966 Student American Medical Association-Mead Johnson Scientific Forum were: **Ralph DiLibero, Bertrand B. Guilian,** and **George Diamond,** all of Hahnemann Medical College, and **Michael Davidson** of the University of Pittsburgh School of Medicine.

Harold H. Cashman, M.D., Phoenix, Arizona, a graduate of the Temple University School of Medicine, will in August become chief of tuberculosis control in the Allegheny County Health Department, according to an announcement by Health Director **Herbert R. Domke, M.D.,** Pittsburgh.

Donald H. Walker, M.D., formerly of Sharon, recently became allergist and surgeon with the Pittsburgh Otologic Association. His exhibit last fall at a conference in Japan, "Surgical Anatomy of the Temporal Base," received the blue ribbon as the most popular scientific exhibit.

Participating in the Chicago congress of the American College of Allergists were **Drs. Leonard S. Girsh,** Philadelphia, **Stephen D. Lockey,** Lancaster, **Herbert C. Mansmann, Jr.,** Pittsburgh, and **A. Harvey Neidorff,** Altoona.

Five Philadelphia physicians conducted a postgraduate conference and diagnostic clinic on arthritis at Fargo, North Dakota, in mid-April. They are: **Drs. Morris A. Bowie, George E. Ehrlich, Charles D. Tourtellotte, Carl L. Levenson,** and **John L. Sbarbaro.**

H. James Day, M.D., Abington, was awarded a Fulbright Scholarship to conduct hematology and blood coagulation research at the University of Oslo, Norway.

Ronald M. Holloway, M.D., was appointed an assistant professor of dermatology at the Temple University School of Medicine, and Out-Patient Clinics director in the university's hospital.

Dr. and Mrs. George Hay, Johnstown, received the fourth annual Golden Deeds Award of the local Exchange Club, in recognition of their many years of community service.

At the Guthrie Clinic, Sayre, the new chief of the section of cardiac surgery is **William Sewell, M.D.,** formerly of the University of Texas. **Drs. Thomas R. Downey** and **Michael B. Hresko** will staff a new psychiatric unit under construction at the clinic.

Benjamin Super, M.D., was recently installed as president of the board of directors of the Visiting Nurse Association, Pittsburgh.

Herman B. Cohen, M.D., who has at various times served as secretary, treasurer, vice-president, and president of the Philadelphia Laryngological Society, was honored at a recent dinner meeting of the organization.

Howard W. Baker, M.D., Philadelphia, executive director at Temple University Hospital, has resigned that position to become director of hospital affairs for Blue Cross of Greater Philadelphia.

James Z. Appel, M.D., Lancaster, president of the American Medical Association, was a featured speaker at the Health Insurance Council's annual meeting, held in New York City.

Among principal participants in the April 14 conference on maternal and child health sponsored by the PMS and the state Department of Health were: **Drs. Thomas F. Fletcher,** Camp Hill, **John M. Keller,** Danville, and **Edward H. Bishop, Jack L. Fairweather, Paul C. Gaffney,** and **Otto C. Phillips,** all of Pittsburgh.

Gilbert M. Bayne, M.D., North Hills, is the new senior director of medical research for Merck Sharp and Dohme Research Laboratories.

David C. Leber, a junior at Temple University School of Medicine, and **Joel Porter,** a senior at the University of Pennsylvania School of Medicine, won top honors in the national competition for the 1966 Student American Medical Association-Eaton Medical Art Awards.

The first woman physician ever appointed to the Scranton School Board medical staff is **Josephine Favini, M.D.**

At the Fifty-ninth Annual Undergraduate Medical Association Day of the University of Pennsylvania School of Medicine, **Drs. Roy G. Williams** and **Leonard D. Miller,** both of Philadelphia, were honored for distinguished teaching. Students receiving prizes for research papers included **Daniel Finkelstein,** Merion, **Lawrence A. Kerson,** Bala-Cynwyd, **Michael S. Hershfield,** Olyphant, **Daniel Bikle,** Chambersburg, and **William Raich** and **David A. Shafritz,** both of Philadelphia.

A guest speaker at the annual session of the Texas Medical Association was **Ralph J. Caparosa, M.D.,** Pittsburgh.

Joseph P. Atkins, M.D., Philadelphia, conducted courses at the meetings of the Pennsylvania Academy of Ophthalmology and Otolaryngology, at Bedford, and of the American Society for Gastro-Intestinal Endoscopy, in Chicago.

Melvin W. Thorner, M.D., formerly associated wth the University of Pennsylvania School of Medicine, has been appointed psychiatric clinician in the research and development division of the Schering Corporation, pharmaceutical manufacturers.

C. Earl Albrecht, M.D., Philadelphia, is the new president of the Pennsylvania Health Council.

Otto Phillips, M.D., Pittsburgh, was a program participant at the annual meeting of the Tennessee Medical Association.

Among the 25 Markle Scholars in academic medicine for 1966 are **Drs. Edward D. Coppola** and **Paul D. Zimskind,** Philadelphia, and **Thomas E. Piemme,** Pittsburgh.

John A. Daugherty, M.D., Harrisburg, was reelected to a three-year term on the board of directors of Capital Blue Cross.

Mario A. Castallo, M.D., Philadelphia, was a guest speaker of the San Diego Gynecological Society, and also conducted the first meeting of the San Diego area alumni of Jefferson Medical College. Subsequently, in Los Angeles, Dr. Castallo conducted a conference on "The Modern Management of the Menopause," under sponsorship of **Joseph DeLosReyes, M.D.**, regional vice-president of the International College of Surgeons.

These staff members of The Children's Hospital of Philadelphia recently presented papers at medical meetings abroad: **Drs. Alfred M. Bongiovanni** and **Walter R. Eberlain** (both in Milan, Italy), and **John W. Hope** and **William J. Mellman** (both in London, England).

At the Student American Medical Association Annual Awards Banquet in Los Angeles in mid-May, the presidential address was given by **Jonathan E. Rhoads, M.D.**, Philadelphia. Among medical students winning SAMA-E. R. Squibb and Sons grant awards at the meeting was **Lawrence S. Jackman**, Philadelphia.

Jack Strassman, M.D., Altoona, is the new director of Mercy Hospital's medical staff, succeeding the late **Joseph C. Mattas, M.D.**

Frederick P. Purdum, M.D., East Brady, was honored at a testimonial dinner marking his retirement after 39 years of serving his community and its environs.

William Likoff, M.D., Philadelphia, was named "Man of the Year" by Brith Sholom's Alex Stanton Lodge, Springfield. Dr. Likoff is president of the American College of Cardiology.

Fellowships in the American College of Surgeons have been awarded to **Drs. Charles K. Zug, III, Jerome G. Stabile**, and **Harry G. Light**, all of Bethlehem.

Stanley Gould, M.D., formerly of York, is the new director of the regional medical department, New England area, of Hoffman-La Roche, Inc.

Douwe L. Radsma, M.D., Gettysburg, had little or nothing to say about his activities aboard the burning cruise ship, *Viking Princess*, but according to a newspaper account, a number of passengers reported such things as, "He worked constantly—he was wonderful. He gave mouth-to-mouth resuscitation and was working all the time as people dropped like flies from the heat."

Joseph T. Marconis, M.D., Pottsville, is the new vice-president of the Hahnemann Medical School Alumni Association.

Edgar L. Dessen, M.D., Hazleton, recently became a member of the AMA's Council on Legislative Activities.

Jerome L. Weinstock, M.D., Penn Valley, was appointed chief of pediatrics at Memorial Hospital, Roxborough.

Robert T. Renz, M.D., Erie, has been made a Diplomate of the American Board of Pathologists.

Ross E. Bryan, M.D., Warren, a past president of the Warren County Medical Society and president-elect of the Pennsylvania Academy of General Practice, was honored at the annual Founders' Day Dinner at Temple University.

A guest speaker at the Cleveland sectional meeting of the American College of Surgeons was **Joseph A. Hepp, M.D.**, Pittsburgh.

Joseph G. Liggett, M.D., Pittsburgh, has been certified as a Diplomate of the American Board of Surgeons.

Program participants at a Geisinger Medical Center meeting of the Hanlong Society were the following orthopedists of the center: **Drs. Willard H. Love, J. George Jonas, Curtis F. Rentschler, Arlo A. Anderson, Bruce Stewart, and E. Masound-pour.**

Bringing M.D.'s and Communities Together

General practitioners, and specialists in many fields, have been successfully placed in Pennsylvania cities and towns needing medical men. If you are a physician looking for a location in which to establish practice, get in touch with Physician Placement Service, Pennsylvania Medical Society, 230 State Street, Harrisburg, Pa. 17105.

Bamadex® Sequels®

Contraindications: In hyperexcitability and in a
tated prepsychotic states. Previous allergic
idiosyncratic reactions.

Precautions: Use with caution in patients hyp
sensitive to sympathomimetic compounds, w
have coronary or cardiovascular disease, or a
severely hypertensive.

Dextro-amphetamine sulfate: Use by unstable i
dividuals may result in psychological dependen

Meprobamate: Careful supervision of dose a
amounts prescribed is advised; especially for p
tients with known propensity for taking excessi
quantities of drugs. Excessive and prolonged u
in susceptible persons, e.g. alcoholics, former a
dicts, and other severe psychoneurotics, has be
reported to result in dependence. Where excessi
dosage has continued for weeks or months,
duce dosage gradually. Sudden withdrawal m
precipitate recurrence of pre-existing sympto
such as anxiety, anorexia, or insomnia; or wit
drawal reactions such as vomiting, ataxia, tre
ors, muscle twitching and, rarely, epileptifo
seizures. Should meprobamate cause drowsin
or visual disturbances, reduce dose—operation
motor vehicles, machinery or other activity
quiring alertness should be avoided. Effects
excessive alcohol consumption may be increas
by meprobamate. Appropriate caution is reco
mended with patients prone to excessive drinki
In patients prone to both petit and grand m
epilepsy meprobamate may precipitate grand m
attacks. Prescribe cautiously and in small quan
ties to patients with suicidal tendencies.

Side Effects: Overstimulation of the central ner
ous system, jitteriness and insomnia or drowsine

Dextro-amphetamine sulfate: Insomnia, excit
bility, and increased motor activity are comm
and ordinarily mild side effects. Confusion, an
iety, aggressiveness, increased libido, and hallu
nations have also been observed, especially
mentally ill patients. Rebound fatigue and
pression may follow central stimulation. Oth
effects may include dry mouth, anorexia, naus
vomiting, diarrhea, and increased cardiovascul
reactivity.

Meprobamate: Drowsiness may occur and can
associated with ataxia, the symptom can usua
be controlled by decreasing the dose, or by co
comitant administration of central stimulan
Allergic or idiosyncratic reactions: maculopa
lar rash, acute nonthrombocytopenic purpu
with petechiae, ecchymoses, peripheral ede
and fever, transient leukopenia. A case of fa
bullous dermatitis, following administration
meprobamate and prednisolone, has been
ported. Hypersensitivity has produced fev
fainting spells, angioneurotic edema, bronch
spasms, hypotensive crises (1 fatal case), anur
stomatitis, proctitis (1 case), anaphylaxis, agra
locytosis and thrombocytopenic purpura, and
fatal instance of aplastic anemia, but only wh
other drugs known to elicit these conditions w
given concomitantly. Fast EEG activity, usua
after excessive dosage. Impairment of visual
commodation. Massive overdosage may prod
drowsiness, lethargy, stupor, ataxia, coma, sho
vasomotor, and respiratory collapse.

First aid for a button popper

Second aid for a button popper

Bamadex® Sequels®

d-amphetamine sulfate (15 mg.) and meprobamate (300 mg.) Sustained Release Capsules

By providing combined anorexigenic-tranquilizing action, BAMADEX SEQUELS Capsules help your nonshrinking patients to establish new patterns of eating less. The amphetamine component suppresses the appetite, while the meprobamate helps allay nervousness and tension. And for most patients, the *sustained* release of the active ingredients makes possible convenient one-capsule-a-day dosage.

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6655

Postgraduate Courses

ALLENTOWN

Continuing Medical Education TV Series, New York Academy of Medicine, at Sacred Heart Hospital, first, second, and fourth Wednesdays, through June, 12 M. Contact E. K. Sipes, M.D., 24 North 18th Street (18104).

BEDFORD

Eighteenth Annual Scientific Session, PAGP, at Bedford Springs Hotel, June 8–11; 20 hours AAGP. Contact R. E. Bryan, M.D., 514 West Third Avenue, Warren 16365.

DREXEL HILL

Symposium on Blunt Trauma, Delaware County AGP, at Delaware County Memorial Hospital, October 29, 9 A.M.–4 P.M.; 6 hours AAGP. Contact E. D. Arsht, M.D., at the hospital, Lansdowne and Keystone Avenues (19026).

HAZLETON

Continuing Education Program, by The University of Pennsylvania School of Medicine, at Hazleton State General Hospital Nursing Home, Second and Third Streets, Thursdays, through December 8 (course under way). Contact V. J. Kennedy, M.D., at the hospital (18201).

OIL CITY

Venango County AGP Symposium, American Cancer Society, June 15, 3–5 P.M., and 7–8 P.M., at Venango Country Club; 3 hours AAGP. Contact W. E. Boyer, M.D., 302 National Bank Building (16301).

PHILADELPHIA

Microsurgery of the Temporal Bone, Temple University School of Medicine, first week of each month. Contact B. J. Ronis, M.D., Temple University School of Medicine, Broad and Ontario Streets (19140).

Interpretation and Therapy of Cardiac Arrhythmias, Hahnemann Medical College and Hospital, at Marriott Motor Hotel, July 25–29. Contact L. S. Dreifus, M.D., 230 North Broad Street (19102).

'Neurology for Internist' Slated at Bowman Gray

Practical information on diagnosis and treatment of neurological problems arising in internists' and family physicians' practices comprises the postgraduate course planned for June 15-18 at The Bowman Gray School of Medicine of Wake Forest College, Winston-Salem, North Carolina. Particular attention will be given to advances in diagnosis and management of cerebrovascular diseases.

Other topics include: disorders of consciousness and mentation; headache; convulsions; vertigo; and neurologic disorders related to metabolic abnormalities or other systemic diseases.

Contact Edward C. Rosenow, Jr., M.D., Executive Director, American College of Physicians, 4200 Pine Street, Philadelphia 19104.

Medical Hypnosis for Graduate Physicians, Department of Psychiatry, Graduate Division, School of Medicine, University of Pennsylvania; at the Institute of the Pennsylvania Hospital, Wednesdays, 3–7 P.M., September 28 through February 22; AAGP accreditation; fee, $150. Contact S. E. Pulver, M.D., director, 111 North Forty-ninth Street (19139).

Applied Office Psychiatry for Graduate Physicians, at the Institute of the Pennsylvania Hospital, Wednesdays, 3–7 P.M., September 28 through December 21; AAGP accreditation; fee, $50. Contact Dr. Pulver, as above.

Seventeenth Hahnemann Symposium, Nutritional Dysfunction, at Sheraton Hotel, in December. Donald Berkowitz, M.D., director.

UNIVERSITY PARK

Fifteenth Annual Health Conference, Pennsylvania Department of Health and PMS, at The Pennsylvania State University, August 7–11; 18 hours AAGP. Contact A. V. Sinkosky, P.O. Box 90, Harrisburg 17120.

• **About This Section:** To be publicized, courses must be one-half day (three hours) or more in length, designed for licensed doctors of medicine, and of interest to physicians in an area of several counties or more. Information must be received by the first day of each month, to appear the following month. Each item will appear no more than four times. Address: Commission on Medical Education, 230 State Street, Harrisburg 17105.

Meetings

STATE SOCIETY

JUNE

Council on Public Service—June 18.

SEPTEMBER

Council on Public Service—September 10.

OCTOBER

One Hundred Seventeenth Annual Session—Penn Sheraton Hotel, Pittsburgh, October 9–13.

REGIONAL

JUNE

"Day of Cardiology," Heart Association of Lancaster County—Holiday Inn, Lancaster, 12 noon to 12 noon, June 16–17.

Alumni Clinical Conference—University of Pennsylvania School of Medicine, June 17. Contact Medical Development Office, 320 South Thirty-fourth Street, Philadelphia 19104.

NATIONAL

JUNE

International Congress on Smoking and Health—Hilton Hotel, New York, June 5–8.

AMERICAN MEDICAL ASSOCIATION ANNUAL CONVENTION—CHICAGO, JUNE 26–30.

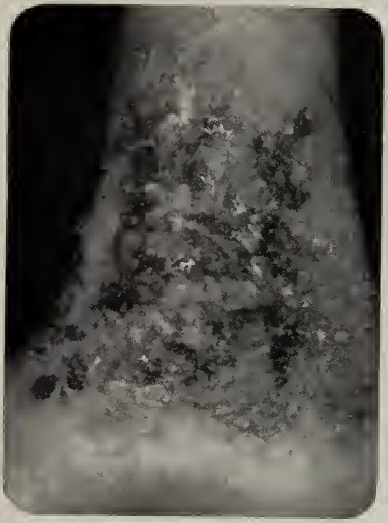
Eye Ills Courses Set

The New York Eye and Ear Infirmary will be the scene of the ninth series of postgraduate courses for ophthalmologists September 7-November 19.

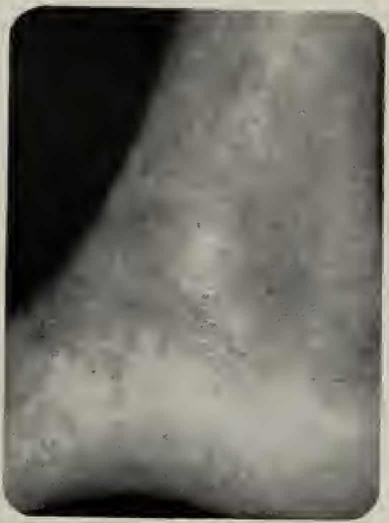
These topics are included: Advances in Ocular Prostheses, Biomicroscopy, Cataract Diseases, Clinical Bacteriology, Contact Lenses, Corneal Diseases, Electrophysiology and Applied Physiology of the Eye, and many others.

Additional information is available from Jane Stark, Registrar, Institute of Ophthalmology of the Americas, New York Eye and Ear Infirmary, 218 Second Avenue, New York, N.Y. 10003.

eczema: scourge of childhood



R. R., Age 11—Before treatment—
atopic eczema of long standing



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Precautions and Side Effects: Do not use in the eyes or in he ear (if drum is perforated). A few individuals react unavorably under certain conditions. If side effects are encountered, the drug should be discontinued and appropriate measures taken. Use on infected areas should be attended with caution and observation, bearing in mind the potential spreading of infection and the advisability of discontinuing therapy and/or initiating antibacterial measures. Generalized dermatological conditions may require systemic corticosteroid therapy. Steroid therapy, although responsible for remissions of dermatoses, especially of allergic origin cannot be expected to prevent recurrence. The use over extensive body areas, with or without occlusive nonpermeable dressings, may result in systemic absorption. Appropriate precautions should be taken. When occlusive nonpermeable dressings are used, miliaria, folliculitis and pyodermas will sometimes develop. Localized atrophy and striae have been reported with the use of steroids by the occlusive technique. When occlusive nonpermeable dressings are used, the physician should be aware of the hazards of suffocation and flammability. The safety of use on pregnant patients has not been firmly established. Thus, do not use in large amounts or for long periods of time on pregnant patients.

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Deaths

○ **Albert B. Berkowitz,** Miami Beach and Pittsburgh; University of Pittsburgh School of Medicine, 1924; age, 71; died April 3, 1966. Dr. Berkowitz was affiliated with St. John's General Hospital, and was a board member of the Jewish Home and Hospital for the Aged. He belonged to the International College of Surgeons. He is survived by his wife, a daughter, two sons (Drs. Myles M. and Robert N. Berk), and a sister.

○ **Augustus H. Clagett,** Stuart, Florida (formerly of Upper Darby); Jefferson Medical College, 1903; age, 83; died June 12, 1962 (PENNSYLVANIA MEDICINE was only recently apprized of his death). Dr. Clagett was the first radiologist at the Delaware County Hospital, Drexel Hill. Always an enthusiastic supporter of organized medicine, Dr. Clagett served the Delaware County Medical Society as secretary for twelve years, and was president for one. His first wife preceded him in death. His second wife survives, as does his son, A. Henry Clagett, Jr., M.D.

○ **William H. Crawford,** Upper Darby; University of Pennsylvania School of Medicine, 1925; age, 65; died April 1, 1966. Dr. Crawford was a staff member at Delaware County, Lankenau, and Bryn Mawr hospitals, and formerly was chief of the communicable disease center at Delaware County Memorial Hospital. He had been an instructor in pediatrics at Temple University Hospital and had served the old Lying-in Hospital which was part of the Pennsylvania Hospital. Chief medical inspector for Upper Darby schools, he was a Diplomate of the Board of Medical Examiners and of the American Board of Pediatrics, and a Fellow of the American Academy of Pediatrics. Among his survivors are his wife, a daughter, and two sons, one of whom is John J. Crawford, M.D.

○ **George W. Garnett,** New Castle; Howard University School of Medicine, 1924; age, 68; died March 16, 1966. There are no known survivors.

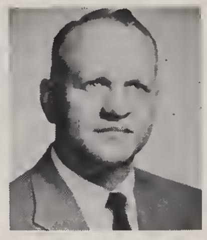
Thomas S. Githens, Philadelphia; University of Pennsylvania School of Medicine, 1899; age, 87; died April 10, 1966. Dr. Githens was an authority on poisoning from snake and spider bites, and had been in charge of antivenon serum production at the old Mulford Laboratories of the Sharp and Dohme Pharmaceutical Company (since merged with the Merck Company). He coauthored a textbook used in medical schools, and during World War II wrote pamphlets for the government in regard to poisonous plants of Africa. He had formerly belonged to the Philadelphia County Medical Society and the State Society.

○ **Hans H. Jaeger,** Haverford; Medical Faculty of Philipps University (Germany), 1951; age, 53; died February 4, 1966. Dr. Jaeger had been an instructor in psychiatry at the Temple University School of Medicine, and had been on the staff of the university's hospital. He belonged to the American Psychiatric Association. His survivors include his wife and two daughters.

Francis J. King, Connellsville; Medico-Chirurgical College, 1914; age, 74; died March 28, 1966. Dr. King formerly belonged to the Fayette County Medical Society, the PMS, and the AMA. His wife, a daughter, and a son survive.

Laird F. Kroh, Charlotte, North Carolina (formerly of Rural Valley); University of Pennsylvania School of Medicine, 1912; age, 81; died February 21, 1966. Dr. Kroh at one time belonged to the Armstrong County Medical Society, the PMS, and the AMA. He is survived by his wife and a sister.

○ **LESKIN, JOSEPH J.,** Shenandoah, Hahnemann Medical College, 1942; age 49; died April 24, 1966. Dr. Leskin, a prominent civic leader in his city and county, collapsed and died just as he was about to speak at a church dinner. Long active in the Schuylkill County Medical Society, he had held several offices and had attended many Annual Sessions of the State Society. In the latter organization, he had served on committees, and for the past eleven years had been Trustee and Councilor for the Fourth District. Pathologist at Good Samaritan Hospital, he had formerly served Locust Mountain Hospital in that capacity. His wife survives.



DR. LESKIN

Victor K. Marsteller, Bethlehem; Jefferson Medical College, 1915; age, 78; died February 15, 1966. Dr. Marsteller was for forty-three years a Bethlehem Steel Company physician. He belonged to several Masonic and professional organizations. He is survived by his wife and three daughters.

○ **John H. McCutcheon,** Philadelphia; Hahnemann Medical College, 1913; age, 76; died February 25, 1966. Dr. McCutcheon had been an associate professor of laryngology and rhinology at Hahnemann Medical College and Hospital, serving for over fifty years. He belonged to the Germantown Homeopathic Medical Society. Among his survivors are his wife, two daughters, a son (John H., Jr., M.D.), and a brother.

Chalmers B. Moore, New Galilee; University of Pittsburgh School of Medicine, 1910; age, 86; died March 9, 1966. Dr. Moore was respected as a civic leader, and had for many years served as a school director. A staff member at the three local hospitals, he had formerly been a member of the Beaver County and the Pennsylvania Medical societies, receiving the Fifty-Year Award in 1960. He is survived by three daughters, a son, and three sisters.

○ **William M. Murray,** Smethport; University of Pittsburgh School of Medicine, 1935; age, 54; died March 18, 1966. Dr. Murray was on the Bradford Hospital staff. He was a Mason, and also belonged to the American Legion. His wife, a daughter, two sons, and a brother survive.

○ **Hugh R. Robertson,** Warren; University of Pennsylvania School of Medicine, 1924; age, 66; died March 23, 1966. The son of the late William M. Robertson, M.D., (who was also the son of a physician), Dr. Hugh Robertson was a Fellow of the American College of Surgeons and served on the Warren General Hospital staff. He is survived by his wife, two daughters, a son (John L. Robertson, M.D.), and a sister.

○ **J. Franklin Robinson,** Wilkes-Barre; University of Toronto Medical School, 1936; age, 56; died April 9, 1966. Dr. Robinson was president of the Academy of Child Psychiatry, and past president of the American Association of Psychiatric Clinics, the Pennsylvania Psychiatric Society for Children, and the Philadelphia Child Guidance Clinics. A member of many other medical and specialty organizations, he was also the author of numerous papers and articles presented at national and international meetings. On February 2, he had marked his twenty-fifth anniversary as head of the Children's Service Center, a model for resident psychiatric treatment facilities. He was active in many local civic, fraternal, and charitable organizations. Surviving are his wife, a sister, and a brother.

John C. Russell, Las Vegas, Nevada (formerly of Rogersville); University of Maryland School of Medicine, 1935; age, 55; died March 6, 1966, in an airplane crash in California. Dr. Russell, formerly a member and secretary of the Greene County Medical Society and a member of the PMS, transferred to the Clark County Medical Society in Nevada in 1954, and, as of 1963, belonged to the AMA. His survivors include a daughter, a son, two sisters, and a brother.

Luther H. Snyder, Washington, D.C. (formerly of Johnstown); George Washington University School of Medicine, 1935; age, 55; died March 6, 1966. From 1939 until his death, Dr. Snyder had taught at his alma mater. He was a board member at Gettysburg College. There are no known survivors.

○ **Adolph A. Walkling,** Bala-Cynwyd; Jefferson Medical College, 1917; age, 71; died March 31, 1966. Dr. Walkling was attending surgeon at his alma mater's hospital and at Pennsylvania Hospital, and was a founding member of the Benjamin Franklin Clinic of the latter institution. He belonged to many medical and surgical organizations, and had held offices in a number of them. In the Philadelphia County Medical Society, he served as vice-president in 1951, and on the board of directors for several years. Surviving are his wife and two sons.

○ **E. Arthur Whitney,** Media; Tufts University School of Medicine, 1922; age, 70; died April 9, 1966. Dr. Whitney was an associate in psychiatry at the University of Pennsylvania School of Medicine, and a lecturer at the Philadelphia School of Occupational Therapy for Mental Deficiencies and Epilepsy. He belonged to the American Psychiatry Association, and in 1934 was president of the Delaware County Medical Society. His survivors include his wife and two sisters.

○ **Louis W. Wright,** Harrisburg; Jefferson Medical College, 1913; age, 74; died March 6, 1966. Dr. Wright was affiliated with the Harrisburg Hospital, and for more than thirty years was active in the Harrisburg Academy of Medicine. His wife, a daughter, two sisters, and a brother survive.

Karl-Henry H. Ziegenhorn, Reno, Nevada (formerly of Philadelphia); Hahnemann Medical College, 1941; age, 50; died March 14, 1966. Dr. Ziegenhorn was an instructor in pediatrics at his alma mater's hospital. He formerly belonged to the PMS and the AMA. Surviving him are his wife, a daughter, and two sons.

Generic Names Urged

Physicians and pharmacists are being encouraged to use qualified generic terms in prescribing and dispensing drugs for the use of patients receiving welfare aid. Max Rosenn, public welfare secretary, emphasized, however, that this policy is to be followed only when it is in the best interests of the recipients.

The policy grew out of a conference between Secretary Rosenn and representatives of medical and drug groups, and will continue to be developed and implemented with the cooperation of such groups and the department under Mr. Rosenn's supervision.

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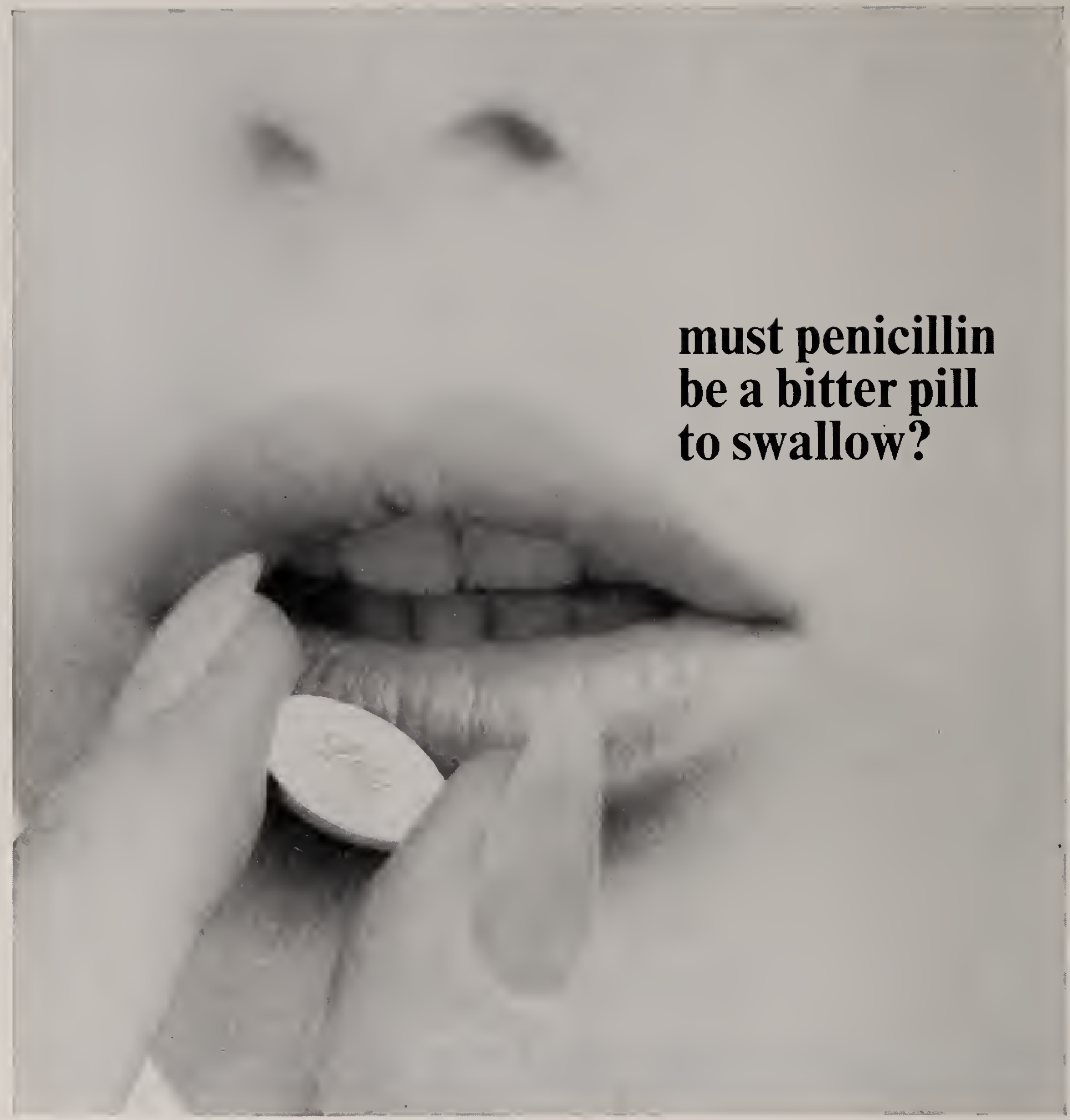

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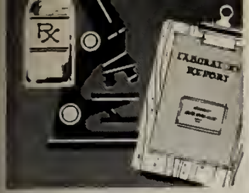

ORIGINAL PAPERS

Evaluating Effects of Methyldopa

The effects of the drug – alone or in combination – are appraised, and excellent results with addition of a thiazide diuretic are reported

DRS. JAMES C. HUTCHISON, RICHARD R. VANDERBEEK,
AND PAUL M. ROEDIGER
Abington, Pennsylvania

Methyldopa has been found to be an effective antihypertension agent.[1] The decarboxylase inhibitor was designed to reduce blood pressure by competitive interference with the biosynthesis of norepinephrine; proof of a direct relationship between this pharmacologic activity and the drug's hypotensive effect, however, is lacking.[2] Although the drug's role in interfering with storage, release, or tissue activity of norepinephrine appears to be the main antihypertension mechanism, the exact mode of action has yet to be determined.

Our study evaluates the clinical and metabolic effects of Methyldopa, as determined by analysis of blood pressures and various blood chemistries including liver function and lipid patterns, and by investigation of side effects.

Fifty-five patients were selected from the Hypertensive Outpatient Clinic of the Abington Memorial Hospital; of these, five were omitted from analysis (because of their unreliability in taking the drug); three others refused to continue because of initial side effects, and they are reported later in the study. Table I summarizes clinical characteristics of participating patients.

■ *At Abington Memorial Hospital, Dr. Hutchison is director of hypertensive research, Dr. Vanderbeek is an assistant physician in the hematology department, and Dr. Roediger is director of medical education and assistant visiting physician in the metabolic service. Drs. Hutchison and Roediger are the authors of numerous published scientific articles. They make their homes in Abington, Dr. Vanderbeek in Doylestown.*

Subjects were divided into three groups, according to diastolic blood pressure: group 1, 95-109 mm.Hg.; group 2, 110-119 mm.Hg.; and group 3, 120 mm.Hg. and higher. All patients were observed for 2-4 weeks on placebo, to determine control pressures. No patients had accelerated hypertension, nor blood urea nitrogen levels above 35 mg. percent. All were started on 350 mg. of Methyldopa, or on 250 mg. of Methyldopa with 25 mg. of hydrochlorothiazide. The initial dose was 2-4 capsules daily, neither form given more than 4 times daily.

Patients were seen every two weeks until a satisfactory result was obtained, then monthly. At the end of four months, all patients were crossed over to the alternate drug. Blood pressure levels were recorded in the sitting position after a time delay averaging five minutes, then in the erect and supine positions. The patients were in a resting state for one-half to one hour prior to being seen. The blood pressure for each drug period is the average value of all determinations during that time interval (Table II). Post-drug placebo blood pressures were recorded 1-2 weeks after cessation of therapy. Pulse, temperature, and body weight also were recorded at each visit.

After a thorough initial work-up for hypertension, the following tests were done at the end of the control period, at the cessation of each drug, and 1-2 weeks after total cessation of drug therapy: hemoglobin, hematocrit, white blood count (W.B.C.), urinalysis, fasting blood sugar, blood nitrogen, urea, uric acid, cephalin flocculation, thymol turbidity, potassium, and cholesterol. In addition, twelve of the patients had complete lipid patterns which included fatty acids, cholesterol, triglycerides, phospholipids, and total lipids.

Statistical analyses were carried out by covariance analysis to determine significant differences in blood pressures and in various laboratory values. To determine the number of successes in each group, a drop of 20 mm.Hg. in mean arterial blood pressure or a return to normotension (140/90 or below) were used to denote significant improvement. Due to incomplete values, two patients were not used in the laboratory data. Four patients were on one drug only—three in group 3 and one in group 2.

Tables II and III show the entire group and intragroup comparison in duration of therapy, average decreases in mean arterial blood pressure, and average doses. Forty-four patients on Methyldopa and forty-three on Methyldopa with hydrochlorothiazide had decreases in systolic and in diastolic blood pressures. Methyldopa with hydrochlorothiazide showed larger decreases in mean arterial blood pressure in all three groups than did Methyldopa alone.

The best results were seen in group 3, ten out of fifteen patients on Methyldopa and fourteen out of sixteen on the diuretic combination responding significantly. The average drop in mean arterial blood pressure was 26 mm.Hg. and 34 mm.Hg., respectively. The group of mildly hypertensive patients showed the least response, with average decreases in mean arterial pressure of 11 mm.Hg. on Methyldopa and 17 mm.Hg. on the combination. Group 2 best represents our re-

TABLE I

47 Patients Treated with Methyldopa, Alone, and Combined with Hydrochlorothiazide

Sex	Race	Av. Age	Age Range
M 13	Negro 7	60	43 - 77
	White 6		
F 34	Negro 23	61	34 - 81
	White 11		

Causes of Hypertension	
Essential hypertension	39
Renal hypertension	5
Atherosclerotic hypertension	3

Concomitant Diseases	
Renal disease	5
Diabetes mellitus	21
Toxemia of pregnancy	3
Obesity	9
Gout	1
*	

* Other patients had multiple disease entities unrelated to present study and are not listed.

Pretreatment Complications of Hypertension		
Myocardial infarction		5
Congestive heart failure		3
Cerebrovascular accidents		2
Angina pectoris		6
Cardiac enlargement		
(by x-ray)	Marked	8
	Moderate	8
	Mild	23
		—
	Total	39

sults, as the combined results of groups 1 and 3 generally equal those of group 2, in which a decrease of 20 mm.Hg. and 25 mm.Hg. is seen with Methyldopa and then with the combination, respectively. Tolerance previously reported was not seen to develop.

Three patients refused to continue in the study because of initial side effects. One patient described an episode of weakness after two doses of Methyldopa; two others who complained of lethargy would not continue the medication; six others, noted to have consistent complaints of increased lethargy, continued.

Two days after starting on the combination drug, q.i.d., another patient experienced a syncopal episode which, by description, could have been due to postural hypotension. Her blood pressure—240/140 before therapy—was 150/90 on the day of the syncopal episode. She was able to continue on the drug at a reduced dosage, without further incident.

Other side effects are listed in Table IV. All patients were quizzed about nightmares or dream states; nine mentioned having nightmares, but only two had consistent complaints, while five experienced "bad dreams" twice.

Of six patients entering the study with a history of angina pectoris, two had no change in symptoms; a third, with angina 2-3 times daily, had some increase in her symptoms after being on Methyldopa for one year, but no alteration in them after cessation of the drug. A fourth patient noted increasing chest pain after being on the combination drug for eight months. She was admitted to the hospital after one of these pain episodes, but revealed no conclusive evidence of a myocardial infarction. After she was discharged on other antihypertension medication, her angina continued as before.

The fifth patient was likewise admitted after several episodes of severe angina following fourteen months of therapy, but again there was no definite evidence of infarction. The sixth patient, a thirty-four-year-old, three-hundred-pound female with complaints of dyspnea for many years, appeared to develop symptoms of mild congestive heart failure four months after starting Methyldopa with hydrochlorothiazide. She improved on digitalis. Six months later, she experienced a syncopal episode associated with severe chest pain. She did not seek medical aid, and when seen in the clinic showed no electrocardiographic evidence of a myocardial infarction. Over the ensuing twenty months, she continued on this drug without further symptoms.

No Deaths

There were no fatalities during the period of this study. No major cardiovascular or cerebrovascular complications were observed. The one possible episode of congestive failure (in the abovementioned obese patient while she was on a diuretic), was a diffi-

TABLE II

Average Systolic, Diastolic, and Means Blood Pressure * Response

		Control B.P.** (mm.Hg.)			Methyldopa					Methyldopa with Hydrochlorothiazide Dose				
Group	No. Pts.	S	D	M	Mo. (Av.)	Tablets (Av.)	B.P. (mm.Hg.) S	D	M	Mo. (Av.)	Tablets (Av.)	B.P. (mm.Hg.) S	D	M
1	17	180	100	127	4.8	2.9	160	94	116	5	3.2†	151	89	110
2	13	199	114	142	3.7	4.0	169	99	122	4.1	4.0	157	97	117†
3	17	222	131	161	4.5	3.6	185	110	135	4.2	3.3	174	103	127†
Summary	47	200	115	143	4.3	3.5	171	101	126	4.4	3.5	161	96	118

* Mean B.P. = D + ⅓ (S-D)
** Duration Control—2-4 weeks
1 95 to 109 mm.Hg.
2 110 to 119 mm.Hg.
3 120 and above mm.Hg.
† Significantly larger than for Methyldopa ($P<0.05$)

TABLE III

Average Decreases in Systolic, Diastolic, and Mean Arterial Blood Pressure

	Methyldopa				Methyldopa with Hydrochlorothiazide			
	Av. Decrease B.P. (mm.Hg.)				Av. Decrease B.P. (mm.Hg.)			
Group	S	D	M	% Resp.	S	D	M	% Resp.
1	20	6	11	35	29	11	17	46
2	30	15	20	58	42	17	25†	72
3	37	21	26	67	56	28	34†	91
Av.	29	14	19	52	39	19	25	67

1 95 to 109 mm.Hg.
2 110 to 119 mm.Hg.
3 120 and above mm.Hg.
† Significantly larger than for Methyldopa ($P<0.05$)

cult diagnosis to substantiate, due to persistent symptoms of dyspnea.

We observed no fluid retention, weight gain, congestive heart failure, or febrile reactions, previously reported in the literature[3, 4] with Methyldopa alone; rather, there was an actual weight-loss, as compared with control values. The occurrence of angina pectoris of increasing severity in three cases was a late complication apparently related to the natural history of the patients' disease, rather than to the drug.

Because of the recent interest in lipids as one of the possible measurable parameters of vascular disease, lipid analyses were done in twelve patients. Since minor alterations in lipid[5] and carbohydrate metabolism[6] have been noted following the administration of thiazide diuretics, it seemed important to evaluate a group of our patients for lipid abnormalities prior to, and during, administration of Methyldopa and hydrochlorothiazide. Use of Methyldopa and then of the diuretic combination did not significantly alter the control values for cholesterol, phospholipids, triglycerides, fatty acids, and total lipids (see Table V).

Two patients had transient alterations of liver function tests during the study. A sixty-year-old male had been on Methyldopa and hydrochlorothiazide for four months when a cephalin flocculation of 67 percent was noted. A bromosulphalein (BSP.) retention was 15 percent. The serum bilirubin was normal. An adequate liver biopsy revealed an occasional binucleated liver cell suggestive of regeneration; there was no evidence, however, of necrosis, fibrosis, or inflammatory infiltration. Ten days after cessation of the drug, the cephalin flocculation returned to normal.

A forty-six-year-old female developed a cephalin flocculation of 87 percent after fifteen months of Methyldopa therapy. A BSP. was 8 percent. The cephalin flocculation dropped to 40 percent two weeks after cessation of therapy. Both of these latter two patients, and sixteen others, had unexplained elevations of control thymol turbidity values which did not change for the two, but generally decreased for the others, during the study. Serum glutamic oxalic transaminase levels were within normal limits for the two patients (see Table VI).

TABLE IV

Minor Side Effects in 50 Patients (Including 3 Dropouts)

Lethargy	8
Syncope	2
Postural Hypotension	3
Diarrhea	2
Gout	1
Impotency	2
Bad dreams	9

TABLE V

Geometric Mean Lipid Values

Parameter	Group	Placebo (Pretreatment)	Methyldopa	W. hydrochlorothiazide
Cholesterol (mgm.%)	1	275	268	280
	2	262	253	272
	Overall	271	262	278
Cholesterol esters (mgm.%)	1	172	174	187
	2	168	172	174
	Overall	171	174	182
Cholesterol esters (%)	1	62	65	67
	2	64	68	64
	Overall	63	66	65
Phospholipids (mgm.%)	1	289	295	291
	2	253	280	290
	Overall	276	289	291
Triglycerides (mgm.%)	1	315	297	330
	2	268	214	232
	Overall	298	267	293
Nonesterified fatty acids (mEq./L)	1	.58	.52	.58
	2	.54	.37	.46
	Overall	.57	.48	.52
Total lipids (mgm.%)	1	891	866	910
	2	786	751	795
	Overall	855	825	870

Note: Group 1—8 patient given Methyldopa, followed by Methyldopa plus hydrochlorothiazide.
Group 2—4 patients given Methyldopa plus hydrochlorothiazide, followed by Methyldopa.

Tables VII through X illustrate the tendency of thiazides to interfere with carbohydrate, potassium, uric acid, and urea metabolism. All observed alterations in blood chemistry returned to normal with cessation of therapy. The one patient with previous history of gout had elevation of uric acid (when the diuretic was added), with clinical symptoms of gout. The elevations of blood sugar, uric acid, and urea nitrogen—with the concomitant fall of serum potassium—are the expected alterations with thiazide administration. The blood sugar was unexpectedly elevated on Methyldopa alone in groups 1 and 2; in the former, this is partly explained by blood sugar of 200 mg. in one of three diabetics on insulin; if this patient's data were deleted from the statistics, the average blood sugars would be 93 mg., still well above the control of 80.5 mg.

TABLE VII

Results of Fasting Blood Sugar Tests

Group	No. pts.	Pre-drug Control	Methyldopa	Methyldopa with Hydrochloro-thiazide	Post-drug Control
1	17	80.5	99.1**	95.5*	90.9
2	13	82.8	91.4	97.4*	93.0
3	15	84.9	82.9	90.4	87.6

* Significantly higher than post-drug control ($P<0.05$)
** Significantly higher than post-drug control ($P<0.01$)

There was one diabetic on insulin in each of the other two groups; on Methyldopa, their blood sugars were near normal in groups 2 and 3. Although recent European literature[7] suggests that Methyldopa may be used to overcome insulin resistance and thus suggests that it is hypoglycemic, we could not confirm this in our study. We continue to study Methyldopa for its possible effect, via the recent work showing epinephrine to be anti-insulin.[8]

We discovered three diabetic glucose tolerance curves in patients on Methyldopa who had normal control values but whose elevated sugars, on the drug, led to the glucose tolerance tests—which, unfortunately, were not repeated on a control basis. Likewise, under the same circumstances (but on the diuretic combination), we discovered three more diabetic glucose tolerance tests.

Much has been written about the hyperglycemic effect of the thiazide diuretics; the elevated blood sugars in all three groups—significant statistically in groups 1 and 2 with the addition of hydrochlorothiazide—is consistent with these findings.

No evidence of renal toxicity was reflected in blood urea nitrogen levels. Three patients with control urea nitrogens of over 25 mg. tolerated Methyldopa without further elevation. Three other patients with borderline levels also had no change in blood urea nitrogen (BUN.). When the diuretic was added, all groups had slight elevations.

Conflicting reports appear in the literature on the efficacy of Methyldopa (alone) as an antihypertension agent. Our data suggests that it is effective in the moderately severe and the severe diastolic patient (as indicated by a drop of 20 mm.Hg. and 26 mm.Hg., respectively, in the average mean arterial pressure in groups 2 and 3). The mildly hypertensive (group 1), showed a drop of 10 mm.Hg. in mean arterial pressure, while only 6 out of 17 responded significantly. In the group as a whole, 50 percent responded successfully to Methyldopa. Considering only groups 2 and 3, two-thirds had significant responses. The addition of hydrochlorothiazide greatly improved these figures, two-thirds of the entire group and four-fifths of groups 2 and 3 responding significantly to the diuretic combination.

The question arises: is the effect of hydrochlorothiazide additive, or does it actually potentiate the action of Methyldopa? A recent study showed that although there was little difference in the effect of Methyldopa or hydrochlorothiazide used singly in one group, when used together they gave superior results. We cannot evaluate the relative effectiveness of Methyldopa and hydrochlorothiazide alone, but interestingly, the superior results with the combination drug were attained with a reduction in the amount of Methyldopa, since this tablet contained 250 mg. of the drug as compared with the 350 mg. tablet when used alone.

In a q.i.d. dosage, 1.0 gm. of Methyldopa with 100 mg. of hydrochlorothiazide was more effective than 1.4 gm. of Methyldopa alone. Since the average number of doses per day was similar in groups 2 and 3, hydrochlorothiazide greatly augmented the effect of Methyldopa, while permitting

TABLE VI

Results of Cephalin Flocculation and Thymol Turbidity

Average Cephalin Flocculation

Group	No. pts.	Pre-drug Control	Methyldopa	Methyldopa with Hydrochloro-thiazide	Post-drug Control
1	17	15.4	11.9	12.7	13.4
2	13	13.6	14.5	16.7	9.5
3	15	18.4	18.9	16.3*	27.4

* Significantly higher than post-drug control ($P<0.05$)

Average Thymol Turbidity

Group	No. pts.	Pre-drug Control	Methyldopa	Methyldopa with Hydrochloro-thiazide	Post-drug Control
1	17	4.96**	4.35**	3.79*†	2.67
2	13	5.92*	5.02*	5.28	3.94
3	15	5.77**	5.11	4.30†	3.83

* Significantly higher than pre-drug control ($P<0.05$)
** Significantly higher than pre-drug control ($P<0.01$)
† Significantly lower than pre-drug control ($P<0.05$)

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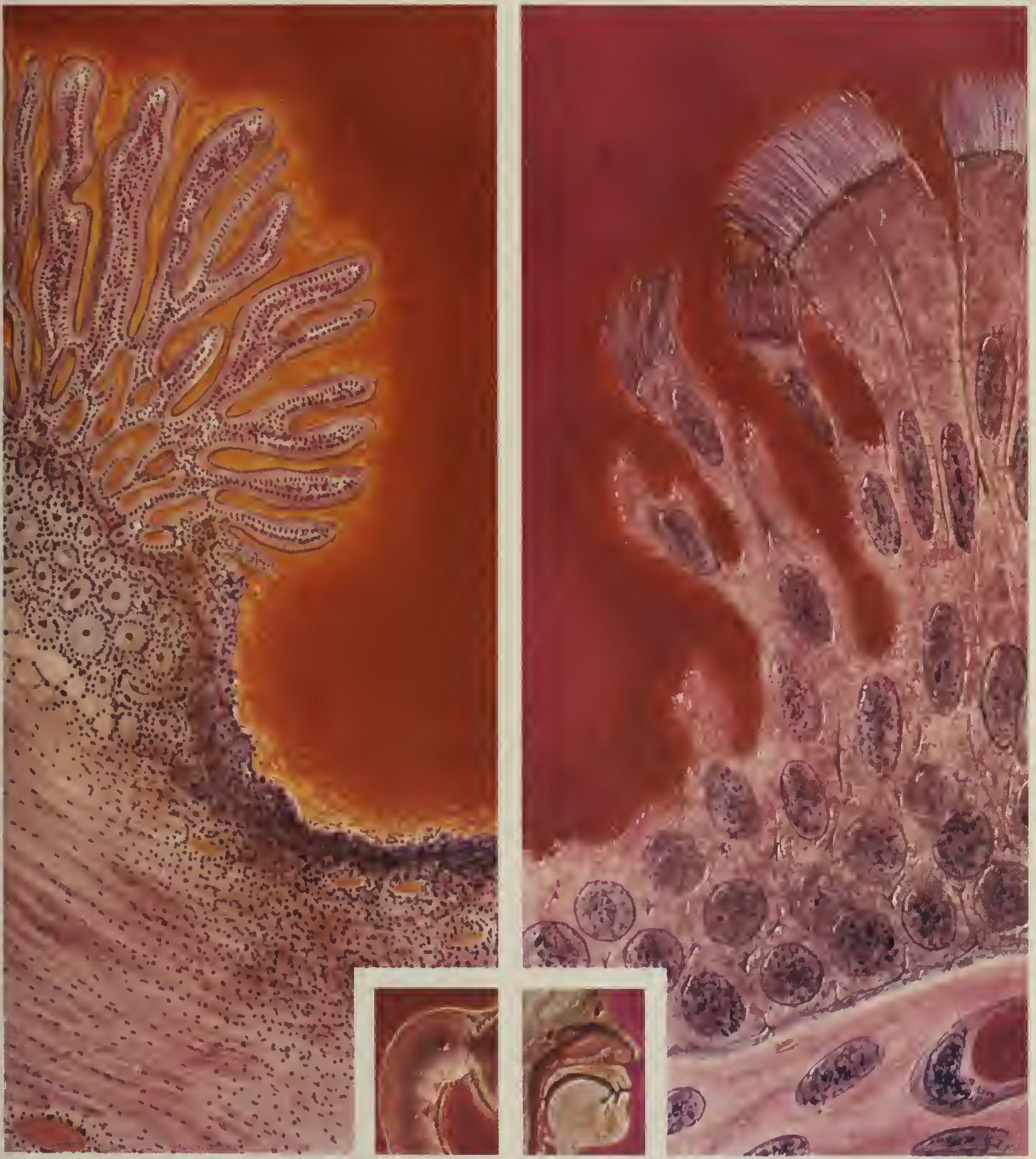


Duodenal mucosa with ulcer crater—Approx. 80× Magnification.

Loosening epithelial cells of nasal mucosa during early stage of cold—Approx. 1800× Magnification.

this issue: partners in misery

partners in misery: common cold and duodenal ulcer*

a century or two ago our forefathers believed that the common cold was caused by an excess of evil humors. Today we regard these baleful humors as a result of the cold rather than its cause. Only in the last ten years have some of the offending viruses been cultivated, and we now know many others can be transmitted to human volunteers although they cannot yet be grown in the laboratory. Various body defenses react to infection by a virus, and in the respiratory tract the lung is protected by the phagocytic properties of the pulmonary alveolar macrophage.[1]

Because of the brief history and large proportion of unidentified viruses, effective prophylactic vaccines have not yet appeared. A universal antiviral agent seems even more remote. Meanwhile, these viruses continue to produce epidemics of upper respiratory infection at seasonal intervals, particularly in spring, fall and winter, during which they propagate and distribute progeny indiscriminately. As a result, they are responsible for significant work loss. Since the immunity afforded is temporary, recurrent infections are common.

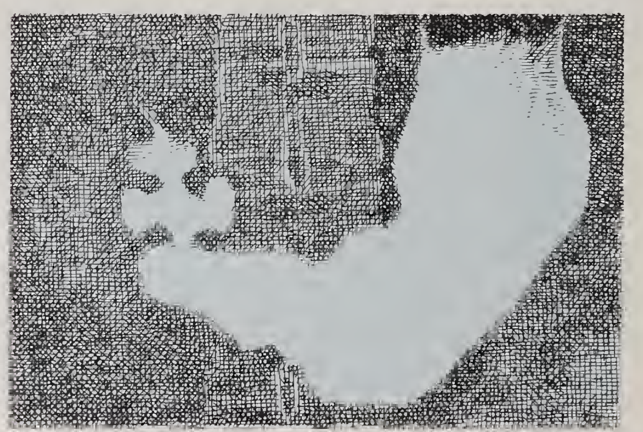
This recurrent morbidity in spring and fall is shared by duodenal ulcer, itself a cause of significant loss in wages and medical expense. Thirty years ago Emery and Monroe reported 1,279 recurrences of peptic ulcer of which 13 per cent could be attributed to upper respiratory infection, thus confirming a long-held clinical impression.[2] While the inflammation, congestion and secretion of the mucosa of the nasopharynx in the common cold, and the hyperemia and hypersecretion of the gastric mucosa during acute exacerbation of a duodenal ulcer may not be directly linked, it is probable that the miseries of the infection are reflected in the pain of the ulcer. The following case history illustrates this point.

Case report

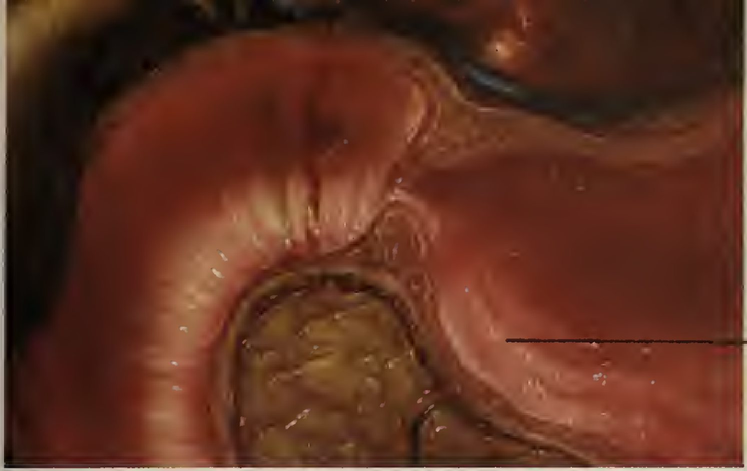
A 48 year old white male executive, suffering from hematemesis and melena for 12 hours was admitted to hospital on April 8, 1965. He gave a history of duodenal ulcer proved by x-ray studies 23 years previously. In the intervening years he suffered from typical epigastric pain occurring two hours postprandially, usually for two or three weeks each spring and fall. A hospital admission two years earlier had followed hematemesis of moderate amount.

The present admission was preceded by a recurrence of pain during a period of unusual business pressure. In addition he caught a cold one week before his entry to hospital and his already irregular eating habits were made more so by loss of taste and appetite, blocked nose and general malaise. During the final 36 hours he used aspirin to relieve his cold, taking 2 or 3 tablets with a glass of water on 6 or 7 occasions. Before retiring he drank a glass of hot toddy.

He awakened about 1 a.m. and vomited dark red blood and recently ingested food mixed with whisky. Melena followed and he was transferred to hospital. On admission he was pale, cold and sweating. Apart from epigastric tenderness and black stool on the examining finger after rectal examination, his general physical examination was not remarkable. Temperature was normal, pulse was thin and thready with a rate of 114 beats per minute, and blood



The commonly found "clover-leaf" roentgenographic abnormality of chronic duodenal ulcer due to spastic contractions and scarring.



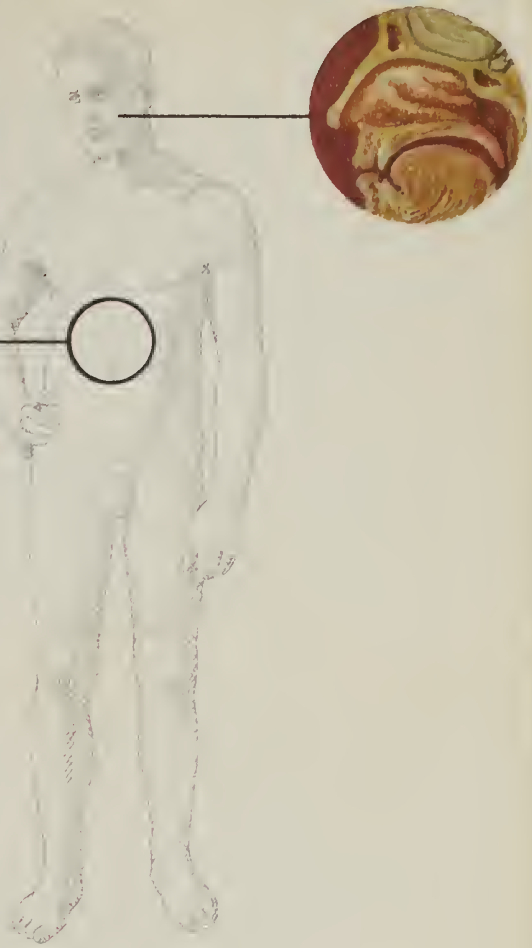
Typical site of duodenal ulcer showing anatomical relationship to gastroduodenal artery and common bile duct.

pressure measurement was 104/60mm. of mercury. Hemoglobin estimation was 8.6 grams per cent, but white blood count, chest x-ray and urinalysis were within normal limits. No further bleeding occurred. After blood transfusions and a suitable medical regime he was dismissed two weeks later and advised to return later for consideration of surgery.

The care of the ulcer patient suffering from a viral infection of the upper respiratory tract is additionally handicapped by the local and constitutional symptoms so produced. Indifference to food often makes it difficult to "feed a cold" even in a patient without an ulcer. In the ulcer patient this becomes more than a homily, for malaise and apathy towards irksome routine produce a lack of interest in adhering to an ulcer program and result in its eventual failure if these symptoms are not relieved. The absence of curative treatment for these viral infections has spawned many a strange therapeutic offspring and some of the more generally accepted remedies contain a special risk for the ulcer patient.

To the gastric physiologist, the shot heard around the world was not fired at Concord but was discharged through the stomach of Alexis St. Martin. The worthy voyageur had a more than modest thirst and on several occasions William Beaumont observed through the resulting fistula the changes of gastritis which followed an immoderate ingestion of alcohol.[3] It is now well known that alcohol stimulates the production of gastric juice and the patient with an ulcer, even in remission, should not drink alcohol without first taking food, milk or antacid. The use of various alcoholic remedies for the common cold is to be strongly discouraged in this type of patient. Factors already present can produce an acute exacerbation of ulcer symptoms without the added stimulus of alcohol.

Headache and facial pain, sore throat and generalized aching are subjective discomforts of viral infections of the upper respiratory tract or their complications. Relief from them is usually sought in the family medicine cabinet, and of all the medications habitually stored there, salicylates are the most frequently used. Oral ingestion of salicylates has produced



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substernal pyrosis and sometimes epigastric pain in susceptible individuals. Bleeding from erosions of the gastric mucosa has followed their use and has been severe enough in some instances to cause hematemesis and melena.[4] It has been suggested that interference with the protective mucous layer of the stomach allows this to happen. There is no evidence that hypersecretion occurs, but the taking of aspirin has been followed by exacerbation of ulcer symptoms and occasionally by gastrointestinal bleeding.[5] The ulcer patient with a cold should take salicylates with an antacid, or preferably other means of symptomatic relief should be found.

Caffeine has two actions on gastric secretion. One directly stimulates production of acid and the other potentiates the out-pouring of gastric juice as a response to other stimuli.[6] In high doses to animals, it has produced erosive gastritis and peptic ulceration. Caffeine-containing beverages are discouraged for the ulcer subject and forbidden during an acute exacerbation.[7] Many cold remedies contain caffeine.

To sufferers from allergic rhinitis springtime brings symptoms of nasal obstruction, loss of taste and smell and malaise similar to those caused by viral infection but due instead to allergens which at that time of year are principally tree pollens. Relief from these symptoms can be obtained, though not wisely, by the use of steroid medication. Unfortunately, chronic sufferers from these allergies have used this approach with varying degrees of success. Steroid hormones increase gastric secretion and delay the healing of experimental ulcers.[8,9] Clinically their administration has been associated with reactivation of healed duodenal ulcers, and with bleeding and perforation which were not always preceded by typical ulcer distress. Because of these harmful effects, their use in the ulcer patient is best avoided for other than serious medical problems and then only with adequate antacid coverage.

Summing up

It is immaterial by which pathways the malaise and lassitude, depression and irritability activate an ulcer, but it is the physician's responsibility to ensure that the medications he selects to relieve the symptoms of a cold do not further aggravate the ulcer.

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TABLE VIII

Results of Potassium Tests

Group	No. pts.	Pre-drug Control	Methyldopa	Methyldopa with Hydrochlorothiazide	Post-drug Control
1	17	4.49	4.35	3.84*	4.43
2	13	4.25	4.48	3.93**	4.22
3	15	4.82	4.11†	3.97††	4.16†

* Significantly lower than the two controls and Methyldopa ($P<0.01$)
** Significantly lower than Methyldopa ($P<0.01$)
† Significantly lower than pre-drug control ($P<0.05$)
†† Significantly lower than pre-drug control ($P<0.01$)

a reduction in dosage. This phenomenon is also seen with most other antihypertension medications when a thiazide is added.

The paucity of serious side effects during the study was quite significant. Three patients dropped out due to initial complaints of lethargy and weakness; another had a syncopal episode two days after starting the study (probably related to postural hypotension), but was able to continue on Methyldopa without further trouble. Six patients with angina pectoris—five of them in group 3—had significant mean arterial pressure reductions.

Methyldopa was discontinued in three of these patients because of increasing chest pain, but this was a late complication, after many months of medication, and was probably due to the natural history of the disease in these patients, whose symptoms did not improve after the subjects were removed from the study. We believe that Methyldopa can be used cautiously with symptomatic coronary artery disease when severe diastolic hypertension is present, but that any increase in the severity of angina would necessitate a cessation of Methyldopa and an evaluation of the patient. Since Methyldopa has been shown to decrease cardiac output, an increase of angina would be explained by a decrease in the perfusion of the coronary circulation, rather than by some iatrogenic effect of the drug itself.

Transient elevations of liver function tests, observed in two patients, returned to near normal with cessation of therapy. No cases of jaundice were seen, and there was no alteration of serum glutamic oxaloacetic transaminase (SGOT.) or serum glutamic pyruvic transaminase (SGPT.). Lipid analyses were essentially unchanged, and no significant changes were seen in either of the patients who had transient liver function abnormalities. There was no evidence of renal toxicity, as judged by the blood urea nitrogen levels.

The uric acid level was slightly higher on Methyldopa than on the control values, and was significant in group 2 ($P<0.05$). The one patient who developed gout did so when hydrochlorothiazide was added to his regimen. Uric acid was significantly increased in groups 1 and 3 on the diuretic combination ($P<0.01$).

Serum potassium levels were significantly depressed with the addition of hydrochlorothiazide. Two patients had levels below 3.0, 2.3, and 2.8 mEq., respectively. Both complained of weakness at that time, but weakness could not otherwise be correlated with hypokalemia.

Not counting the four known diabetics in the study, eleven patients had fasting blood sugars of over 100 mg. on the diuretic combination, while five on Methyldopa alone had similar elevations. This led to the discovery of nine relatively mild diabetic glucose tolerance curves—difficult to interpret, due to the tendency of abnormalities to develop in the glucose tolerance test, with a patient's advancing age. None of these patients is being treated for diabetes.

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TABLE IX

Results of Uric Acid Tests

Group	No. pts.	Pre-drug Control	Methyldopa	Methyldopa with Hydrochlorothiazide	Post-drug Control
1	17	4.88	5.06	6.03**	4.59
2	13	4.84	5.62*	5.10	4.62
3	15	5.01	5.08	6.26**	5.19

* Significantly higher than the two controls ($P<0.05$)
** Significantly higher than the two controls and Methyldopa ($P<0.01$)

TABLE X

Results of Blood Urea Nitrogen Tests

Group	No. pts.	Pre-drug Control	Methyldopa	Methyldopa with Hydrochlorothiazide	Post-drug Control
1	17	15.3	14.3	17.8*	15.8
2	13	14.7	14.7	17.8	14.4
3	15	17.0	17.1	19.6**	16.1

* Significantly higher than the two controls ($P<0.05$) and Methyldopa ($P<0.01$)
** Significantly higher than the two controls and Methyldopa ($P<0.05$)

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Anemic Retinopathy

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LOWELL M. WEISS, M.D.

Philadelphia, Pennsylvania

Retinopathy, associated with gastrointestinal hemorrhage and disappearing upon correction of the resultant anemia, was first reported by Ulrich,[1] in 1883. Swanzy,[2] in 1888, and Pagenstecher,[1] in 1905, observed similar examples of transient retinal hemorrhages corresponding to periods of anemia from multiple causes.

We recently observed a patient with transient reversible retinopathy following massive hemorrhage from a nosebleed. Recognition of the etiology of the retinopathy was complicated by the fact that the patient was hypertensive and had the sickle cell trait.

The purpose of this report is to urge the physician to consider anemia in the differential diagnosis of retinopathy, especially in cases where the anemia coexists with a systemic illness more commonly associated with retinal abnormalities.

Case Report

F.C., a thirty-seven-year-old man, was admitted to the Philadelphia Veterans Administration Hospital on August 28, 1964, because of severe epistaxis. He also complained of easy fatigability, exertional dyspnea, frontal headaches, and occasional episodes of dizziness. For one week prior to hospitalization, he had experienced severe, intermittent epistaxis for which he had been given emergency treatment at another institution. For the first time he was told that he had high blood pressure.

Physical examination revealed a blood pressure of 240/180 in the admitting office and 190/120 upon arrival on the medical ward. There was brisk bleeding from the right nostril. Funduscopic examination revealed some arteriolar narrowing, but no hemorrhages, exudates, or papilledema.

The white blood cell count and differential, platelet count, routine urinalysis, blood urea nitrogen, and blood sugar were within normal limits, as were the serum concentrations of creatinine, sodium, potassium, chloride, carbon dioxide, bilirubin, and iron. Other pertinent studies included normal values for creatinine clearance, histamine provocative test, vanillymandelic acid urine levels, intravenous pyelogram, upper gastrointestinal series, serologic test for syphilis, prothrombin time, bleeding and coagulation times, and Coombs' test.

The hemoglobin concentration was 6.9 gms. percent, with a hematocrit of 22 vol. percent. Red blood cell count was 2.4 million/cu.mm. and the reticulocyte count was 16.4 percent. The sickling phenomenon was present, and subsequent hemoglobin identification revealed 1.6 percent A_2, 43.7 percent S, and 54.7 percent A. A bone marrow examination revealed decreased iron stores and erythroid hyperplasia, a pattern consistent with anemia secondary to blood loss. The electrocardiogram revealed early left ventricular hypertrophy, and roentgen examination of the chest with barium showed cardiac enlargement predominantly involving the left ventricle.

On a program of modified bed rest and mild sedation with phenobarbital, the blood pressure fell to the range of 150-180 mm.Hg. systolic and 80-110 mm.Hg. diastolic, and remained at these levels until the patient's discharge from the hospital. The epistaxis was readily controlled with nasal tamponade, and the packs were removed within 48 hours. An irregularity in Kiesselbach's area was found, and the bleeding was attributed to the underlying hypertension. Repeat funduscopic examination four days after entry revealed the development since admission of large cotton-wool exudates and a few flame-shaped hemorrhages. An ophthalmological consultant suggested that the hemorrhages and especially the exudates were out of proportion to the vascular changes, and perhaps were due to anemia.

Oral ferrous sulfate therapy was begun on September 2, five days after admission. The hemoglobin and hematocrit rose steadily; by September 28, the hemoglobin was 12 gms. percent and the hematocrit, 40 vol. percent. Funduscopic examination at this time revealed complete resolution of the hemorrhages and exudates, leaving the minor vascular changes as noted on admission.

Discussion

The manifestations of anemic retinopathy are nonspecific, and may closely simulate hypertensive, uremic, or diabetic changes.[1, 3, 4] Lesions most commonly seen are hemorrhages and exudates, but disc pallor, optic atrophy and neuritis, retinal detachment, and papilledema may be found.[1-6] If the latter lesion is seen, malignant hypertension and an intracranial mass lesion must be considered in the differential diagnosis.

In the protocol, we believe that the retinopathy was directly related to the anemia. As noted, the hypertension was severe only on admission, at which time no hemorrhages or exudates were present. Furthermore, the subsequent hemorrhages and exudates were

■ *Dr. Weiss, formerly a resident in medicine at the Veterans Administration Hospital, Philadelphia, is a Fellow in Cardiology at the Temple University Medical Center. He makes his home in Philadelphia.*

deemed out of proportion to the vascular changes. The delayed appearance of the lesions is not easily explained, but both immediate and delayed eyeground changes are well documented in different types of anemia.[3, 6, 7] The disappearance of the retinopathy over the three and one-half week period of treatment with ferrous sulfate, during which time the blood pressure was relatively stable at mildly hypertensive levels (coincident with a 5 gm. increase in hemoglobin), suggests a causal relationship.

Sickle Cell Trait

The existence of sickle cell trait in this case deserves comment. The presence of this hemoglobin pattern is not always a benign and incidental finding. The literature is replete[8-10] with various examples of pathologic entities in such patients, usually occurring in high altitude or comparable hypoxic environments. In sickle cell anemia itself, as well as in some of the heterozygous sickle states (i.e., S-C, S-D), retinal lesions have been described.[5, 11] The underlying pathogenesis[12, 13] of these lesions is thought to be similar to that of sickling elsewhere in the body, and will not be discussed. More pertinent to us, however, are rare reports[12, 14] of retinopathy purported to be secondary to the sickle trait alone. Goodman et al,[11] in an extensive review of sickling and ocular pathology, point out that many of the reports did not include specific hemoglobin identification, and were probably in reality heterozygous sickle states (S-C, S-D), rather than the sickle trait alone. The specific relationship of the hemoglobin pattern to the ocular lesions, and the presence or absence of associated disease, were likewise not clarified in the aforementioned reports.

In our protocol, the severity of the anemia militates against its being related to the sickle cell trait, particularly since there was no hypoxic environment present. The history of epistaxis, the hematological picture, and the response to iron, are self-evident. These factors, plus the conflicting evidence in the literature, lead us to believe that the presence of the sickle cell trait in our patient was fortuitous, not contributing to the anemia and/or retinal lesions.

Pathogenesis

The pathogenesis of the retinal changes secondary to severe anemias remains conjectural. Most workers suggest such factors as anoxia, venous stasis, angiospasm, increase in capillary permeability, and increased cerebrospinal fluid pressure.[1, 4-7, 15, 16] Other contributing factors include severity of the anemia,[5, 7] periods of hypotension (especially following massive gastrointestinal hemorrhage),[1] and associated hematologic abnormalities such as thrombocytopenia, increased blood viscosity (myeloma, leukemia, macroglobulinemia), and optic nerve infiltration (leukemia, reticuloendothelioses).[15] The viscosity changes and optic nerve infiltration appear to be especially important in causing stagnation of the ocular circulation, leading to increased venous dilatation and decreased venous outflow from the eye, thus augmenting the anoxic damage.

Papilledema probably results from anoxic cerebral edema with consequent increased cerebrospinal fluid pressure,[7, 15, 17] although Tassman[7] states that sudden profuse blood loss can also cause direct ischemic edema of the optic nerve. Finally, retinal edema may be severe enough to cause localized retinal detachments.[15]

Examination of the eyegrounds is extremely important in the overall evaluation of patients, especially those with hypertension, renal disease, diabetes, and certain intracranial mass lesions. The presence of retinopathy frequently influences the management and prognosis in the above conditions. For example, in hypertension and diabetes, the degree of retinopathy is used as an indication of severity in the former,[5, 18] and as a reflection of duration and quality of the control of the latter.[5]

Etiologic Factor

In patients with any of the above diseases who are also anemic, such as in the case under discussion, it is important to consider the possibility that the anemia *per se* may play an etiologic role in any existing retinopathy. Bloom, Wayne, and Wrong[19] recently published an excellent review of Goodpasture's syndrome in which five profoundly anemic cases were presented. Four of the five showed unexplained retinal hemorrhages or exudates. The only survivor showed nearly complete clearing of the fundi after treatment with corticosteroids, and administration of blood transfusions (despite persistence of azotemia). These workers suggested that one of the factors producing the retinal abnormalities might result from massive pulmonary hemorrhage. They have referred to an aforementioned paper[1] in which Pears and Pickering state the belief that a major factor in the development of retinopathy after extensive hemorrhage from any site is the resultant anemia and its effects.

Since anemic retinopathy is almost always reversible with correction of the anemia, one should be reluctant to ascribe eyeground changes entirely to concomitant systemic disease until restoration of normal hemoglobin levels and funduscopic reevaluation.

• The author is grateful to Drs. Ralph Myerson, Theodore Rodman, and the late Bernard Pastor, Philadelphia Veterans Administration Hospital staff members, for their guidance and assistance.

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Cardiovascular Briefs

Advent of Research in Heart Disease

How has research changed our approach to heart disease?

Forty years ago the physician thought little or nothing about research in heart disease. Surgeons took a dim view of it because it seemed unlikely that many would ever operate on a heart, much less an open one! Today the President of the United States, the Congress, and surgeons have to an important degree taken on the problem—as witness the Heart, Cancer and Stroke Commission report, the artificial heart program, open heart surgery, prosthesis, and endarterectomy for stroke. To most cardiologists, this is a truly extraordinary state of affairs. Few thought they would live to see the day when the "aseptic scalpel" virtually took over the stethoscope and the percussing finger.

Now that great interest has been generated and large amounts of money are involved, what are we going to do with this problem of cardiovascular research? We seem to have forgotten that there are three basic areas of greatest concern: arteriosclerosis, hypertension, and rheumatic fever. If we could prevent these, much of our problem would disappear, and there would be much less need for surgical repairs.

We can approach these problems to prevent these diseases, or to repair damages once they have occurred. The latter concern is the one now in the public eye. It is the *modern miracle* approach, with tubes, valves, pumps, engineers, surgeons, and legislators making up teams that, much to our surprise, have accomplished a great deal in this aspect of the problem. The other approach—the search for the causes, mechanisms, and prevention of cardiovascular disease—is the neglected one. Hence, it is in this area that many advances are yet to be made. We have barely begun to uncover these underlying problems, the bases of the more obvious ones.

How successful has research been in detecting the basic mechanisms?

Research on atherosclerosis has been altogether too limited to epidemiology and diet. The proper and reasonable avenues of basic laboratory investigation have hardly been scratched. As long as we operate on the current superficial approach, the problem is not likely to be solved, even though very useful advances are being made. One of the most important, for instance, has been the development of cinecoronary angiography. Learning the feasibility of large-scale environmental studies such as the National Diet-Heart Study is of great value, because many factors in our environment that we suspect as atherogenic must be put to controlled clinical test. But we are still successfully evading the core of the problem, and this may continue indefinitely if the judgments and the planning are left to those who want immediate action transferable without delay to the "health consumer." Legislative fiat is not likely to succeed in this regard any more than the Volstead Act did in trying to persuade men not to drink.

Concurrent with the widespread use of antihypertensive agents has come a fall-off in the grant requests to the National Heart Institute for the study of hypertension. It is not clear whether this represents a decline in interest or a siphoning off of talent to other endeavor. Hypertension, though never a glamor disease, is a complicated and subtle one and lends itself well to mass media "breakthroughs." The same may be said for rheumatic fever, yet with concentrated effort, this disease could essentially be wiped out. Taking a throat culture is just not as exciting as replacing a mitral valve! Prevention of rheumatic fever has little appeal compared with the sight of a poor youngster in failure from mitral stenosis.

What are your views on the goals of a suitably trained research team?

We cannot talk ourselves out of our problems. Planning is fine if the planners know what they are planning. Committees have a use, though it is limited. White House conferences give status and the illusion that "all is well" in this great country. But the simple fact is that until individuals with creative research in their souls are given time and facilities to work on these problems, the problems will probably not get solved. We too often confuse the form for the content.

Lip service is paid to the conduct of basic research, but long experience has taught me that it is little more than this. When the chips are down, the big money and the moral support go to the applied branch. The basic investigator is relegated to second-class citizenship. Clinicians themselves, I am sorry to report, are among the worst offenders. I have seen few medals being conferred on basic medical scientists, and the commission and committee memberships of the important Washington and Chicago power centers contain few, or none at all. Hard as it is for us to admit, the scientist—Ph.D. or otherwise—is a vital part of research. Medicine is no longer the only attractive outlet for his energies.

As clinicians, let us grow up to the stature expected of us and make room for those who will ultimately allow us to advance.

● William G. Leaman, Jr., M.D., questions IRVINE H. PAGE, M.D., Director of Research, Cleveland Clinic Foundation, and Past President, American Heart Association, Cleveland, Ohio. Dr. Leaman, Fellow, Council on Clinical Cardiology of the American Heart Association, edited this brief for the Council on Scientific Advancement, in cooperation with the Pennsylvania Heart Association.

Resuscitation — 1966

An answer to the age-old problems of postponing death in a cardiac or pulmonary emergency takes form in a newly-designed 'mobile unit'

DRS. JOEL J. NOBEL
JOHN Y. TEMPLETON, III
Philadelphia, Pennsylvania

Cardiopulmonary resuscitation is often a chaotic, desperately-applied effort. There are many reasons for the confusion accompanying hurried attempts to postpone death and recover a viable human being: inefficient organization and delegation of responsibility, lack of an effective and continuing training program, difficulty in rapid communication, and delay in transport of equipment and personnel to the area of the emergency.[1, 2] Our meager knowledge of the dying state, and inadequate application of known clinical methods, add to the dilemma.

A two-phase program has been established to deal with this problem: (1) a system for more effective application of currently available knowledge and techniques has been put into operation which includes a special resuscitation vehicle, plus data-acquisition and data-reduction equipment; (2) the derived information is then used for continuing improvement of the operational program and as a data source for a long-term basic research program in the physiology of agonal states and resuscitation.

Currently available resuscitation equipment systems are inherently inefficient. The conventional drug and equipment cart wheeled to the patient's bedside is highly inadequate in a rushed, technically demanding situation. The principles of human engineering, systems analysis, and operations research so commonly employed by industry and the armed forces, have not been applied to planning for resuscitation.

■ *Drs. Nobel and Templeton are associated with Pennsylvania Hospital. During his residency there, Dr. Nobel designed the equipment vehicle described in the article.*

Based on a systems-oriented design philosophy, a mobile emergency life support vehicle has been developed, providing a firm litter surface upon which the patient is placed for resuscitation and, if necessary, subsequent transportation to an intensive care unit or operating room. All equipment is below the litter surface in a series of specialized compartments.

Time-motion studies have demonstrated that less time is required to place a subject on a litter than to move him from bed to floor or to place a backboard under the thorax. One of these procedures must be used to maintain efficient external cardiac massage.[3] Moreover, once the patient is placed on a specialized vehicle many advantages accrue. Instead of being surrounded with cumbersome equipment, the patient becomes part of an effective man-machine system. Less time is required properly to meet the basic physiologic demands of airway, ventilation, and artificial circulation. The subsequent sequence of connecting monitoring leads, establishing an intravenous route, combating acidosis, and administering cardiotrophic drugs follows more rapidly. Errors in equipment manipulation are less likely to occur, and the usual frustration and attendant loss of efficiency is diminished.

When stored, the vehicle (nicknamed "MAX"), is considerably smaller than a standard litter, its floor space requirement being one-third that of the more conventional vehicles together with the patient's bed. In addition, its unique running gear, handbrake, and lightweight tempered aluminum construction facilitate handling. A folding section at the foot of the vehicle extends it to conventional litter length. The litter surface is hard, providing a firm base for external cardiac massage. It is nonconductive, isolating the patient electrically and thereby minimizing interference with the monitoring cardioscope and electrocardiograph. Shock hazard and inadvertent ground paths during defibrillation are also avoided.

A pneumatically powered external cardiac compressor using tank or wall oxygen is mounted in a position on the litter top, where it easily adapts to a variety of patient sizes.[4, 5] Three EKG leads are coiled in their respective compartments in positions next to the point on the patient's body where the preattached sterile needle electrodes are inserted. The leads are also coded in color and plain language, so that there can be little confusion as to which lead goes in which position. Needle electrodes are faster to place than plate-type electrodes with straps, they require no electrode paste, and they have excellent signal characteristics.

The compartment at the head position contains all necessary airway and ventilation equipment as well as items used near the patient's head: respirator, aspirator, and—stored in racks in the door—laryngoscope, endotracheal tubes, airways, and related gear. This compartment also contains two preset oxygen regulators mounted on "E" tanks, and the wall oxygen input hose. Additional monitoring equipment, the FM data acquisition system, and a hypothermia unit or small cardiopulmonary bypass machine may be installed here. The self-retracting A.C. power cord and auxiliary ground wire reel are directly under this compartment.

The middle compartment houses an easily removed chassis with modular electronic units which permit options in choosing or changing equipment to meet various requirements. Typical instrumentation includes: (1) monitoring scope for EKG, EEG, and pulse, (2) D.C. defibrillator for internal and/or external use, (3) graphic recorder for direct paper write-out of the oscilloscope trace, and (4) pacemaker for internal or external application.

If a synchronizer is desired, the pacemaker may be mounted in the head compartment. In this middle compartment, behind the electronics chassis, is a power pack which consists of a 70 amp.-hr. storage battery, an inverter to convert the battery's 12-v. D.C. output to 115 A.C., a battery charger, switchgear, and relays which automatically switch the vehicle from the battery charge mode to self-contained power when the vehicle is moved or alerted, or to A.C. when the optional A.C. power cord is plugged into a hospital wall outlet. A separate hinged door swings up and locks in the horizontal position to serve as an arm board for intravenous injections, and as a work table to hold a cutdown tray. It also provides access to the power pack and master circuit breaker.

The third section contains four large drawers for systematic, logical storage of drugs, intravenous fluids, equipment, and surgical trays. Drugs are in the top drawer in separate removable modules alphabetically sequenced by drug names. Each vial or ampule fits into a specific hole. All drawers are on full extension slides and are completely removable when a release is pressed; thus they can be used as trays away from the cart, so that a nurse may prepare medications without crowding the resuscitation procedure.

Conventionally loaded carts overturn with distressing frequency when moved rapidly, but MAX's center of gravity is extremely low, precluding this mischance. Although heavier than some standard carts because of its complete supply of equipment and its self-contained power supply, its superior stability and braking system permit it to be moved with greater speed and control than smaller lighter carts. The vehicle may be stored in the intensive care unit, emergency room, or other appropriate area where it is connected to a special electrical outlet by a reinforced "umbilical cord." When the vehicle is stored, current passes through this cord to charge the battery. A green pilot light indicates when the battery is charging and the vehicle is ready for use.

Stopping this current, either by hospital emergency command system or by moving the vehicle (which automatically separates the umbilicus), activates the alert circuit. The green light goes out and a red light indicates battery operation. The elapsed-time meter starts, providing a continuous direct digital readout of minutes and seconds since alert. A running clock stops to record actual alert time. The monitoring scope preheats so that it has a stable baseline by the time the vehicle arrives at the patient location, and the data acquisition system also starts automatically. All three instruments continue to function as the vehicle is moved to the patient. It is not even necessary to remember an "off-on" switch.

Self-Sufficient

At a convenient and unhurried moment, the self-retracting A.C. line cord may be plugged into the room electric power, automatically turning off the inverter and conserving the battery. All electrically operated equipment automatically shifts to direct A.C. power. Should hospital power or oxygen not be available, the vehicle can operate from its battery and tanked oxygen. The battery will power the monitoring scope, EKG recorder, defibrillator, pacemaker, lights, and elapsed-time meter for more than two hours. Each of the "E" oxygen tanks will provide continuous power to the external cardiac compressor and ten liters per minute to the respirator for approximately fifteen minutes, before it is necessary to shift to the second tank. Shifting between wall oxygen and internally stored tank oxygen or between either of the two tanks, or replacing a tank, can be accomplished without missing a stroke on the cardiac compressor or decreasing flow to the respirator.

If it is advisable not to move the patient from the bed, the entire vehicle can function as a conventional bedside cart. Spare bedside monitoring cables for EKG, EEG, or pulse pressure wave are plugged into jacks on the front of the monitoring scope. The external cardiac compressor may be applied to the patient in bed. Oxygen, aspirator, work lamp, respirator, intravenous hangers, defibrillator, and recording system are also designed to be used at the bedside. Oxygen and aspirator tubing and all electrical cables are long enough to reach the bed on each side of the vehicle. The long articulated arm of the work lamp doubles as a cable boom, keeping monitoring cables well out of the way. When the vehicle is used in this fashion, resuscitation procedures may still be carried on much more rapidly than with a conventional cart.

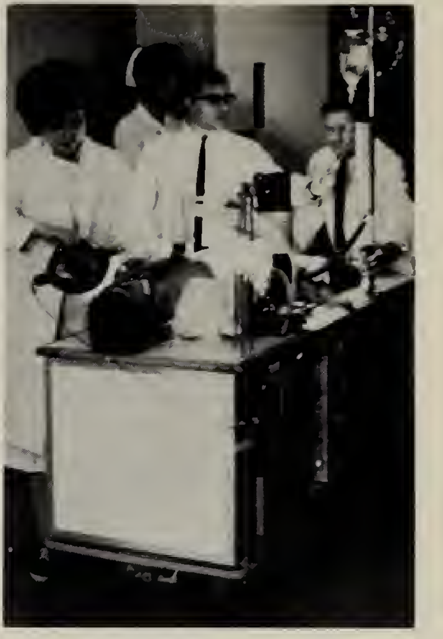

Fig. 1. Patient being transported, with concurrent operation of respirator, aspirator, external cardiac compressor, cardioscopic, and intravenous drip, sustaining essential functions.

Experience in using the unit, however, has demonstrated substantial time saving by transferring a resuscitation patient to MAX, even if the patient is already in an intensive care unit, is being monitored, and has intravenous fluids running.

Transporting Patient

Self-contained oxygen and electric sources make the vehicle independent of external power and permit transportation of the patient during resuscitation procedures. If the patient is to be moved to the intensive care unit where post-resuscitation cases are followed, or to the operating room, this is easily done with assisted oxygen-supplemented respiration, external cardiac compressor sustained circulation, and intravenous drip, and with EKG, EEG, or pulse pressure waveforms visible on the monitoring scope. The capabilities of the vehicle are such that it can provide more sophisticated resuscitation procedures while in transit than most intensive care units or emergency wards can provide with the patient lying in bed.

After transporting a patient to the operating room, MAX continues to function very effectively as an operating table. In several instances a thoracotomy has been performed on a patient whose life was being sustained by the vehicle's respirator, external cardiac compressor, oxygen, and intravenous equipment. Conventional skin preparation and draping was used.

Unscheduled maintenance follows the return of the vehicle from an emergency, and is usually the responsibility of the nursing staff. It includes replacement of consumed drugs and equipment, cleaning of the outside of the vehicle, emptying and cleaning of the aspirator bottle, and replacement of oxygen tanks. These duties take approximately ten minutes. Scheduled maintenance is limited to a yearly lubrication of running gear and aspirator, and a monthly check of battery water.

MAX equips any hospital room to serve as a temporary intensive care unit. As a monitoring system for general purpose use or coronary care, MAX will monitor EKG, EEG, or pulse pressure with an infrared photocell oximeter. As a mobile cardioversion center, it may provide synchronized cardioversion.

Data Recording

MAX's data acquisition system functions automatically during the clinical procedure, continuously recording on magnetic tape the patient's electrocardiogram, electroencephalogram, and pulse pressure, while recording the resuscitation team's directions, activities, and comments.

The fact that systematic data-gathering during resuscitation emergencies has seldom been effectively accomplished heretofore, has prevented improvement of techniques and concealed potentially valuable information about the dying state. Retrospective analysis of the individual case in conjunction with a continuing training program for house and nursing staff helps to pinpoint areas of technical and organizational inadequacy. Analysis of a series of such resuscitation efforts is expected to provide more basic information about the reversibility of clinical death. The automatic data acquisition system permits physicians to devote attentions solely to the patient's requirements.

A record of the entire sequence of events is available from the magnetic tape with its three physiologic data channels and simultaneous sound-recorded activities channel.

A specialized data reduction system displays three to four simultaneous physiological traces on an oscilloscope. An analyst can evaluate the data and review the entire procedure by observing the oscilloscope while listening to the voice track through headphones. If detailed inspection is necessary, the oscilloscope traces can be stored for static display, compared with previous ones, photographed, or printed out on a direct writer.

All data from the tape can be reduced to an IBM optical page mark scan form, and supplemented by a standard reporting form containing information from the patient's chart, interviews of the team members, and, in the event of death, information from the postmortem examination. This material, also in optical page mark scan format, includes brief sections by the person initiating the resuscitation emergency and by the resuscitation team leader. Many discrete categories of data can be analyzed, encompassing preemergency states, events during resuscitation, postresuscitation care, patient follow-up, therapeutic techniques and consequences, and system efficiency. The optical page mark scan system eliminates the need to transfer data from a written form to punch cards, since it provides directly compatible input into a central processor for mass tabulation and correlation by digital computer.

Having these concrete data available for the first time for thoughtful and unhurried consideration, a research team may review the use of defibrillator, pacemaker, drugs, and other therapeutic modalities, and significant physiologic measurements, in relationship to patient response. Correlation of drugs and their time and mode of administration in the agonal condition with changes in physiologic traces, is made possible.

This system also permits determination of administrative information such as alert time, vehicle movement times, elevator lag and transit times, and arrival times of personnel, as in an industrial time-motion study. The effectiveness of the resuscitation team

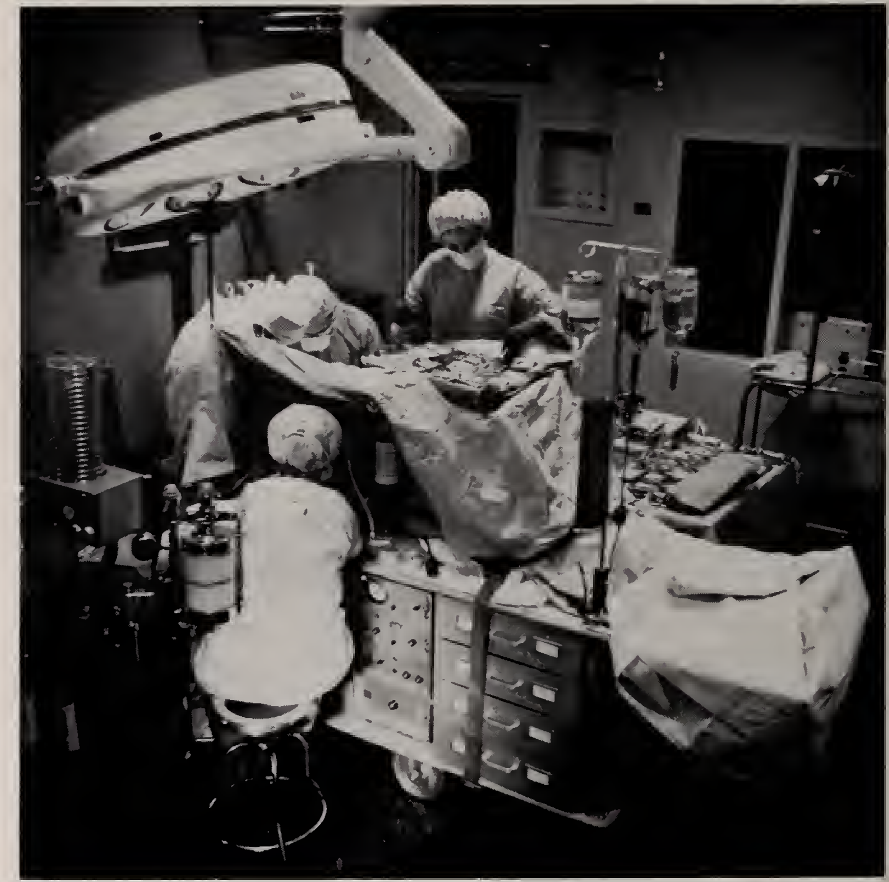

Fig. 2. Mobile life support system sustains patient in operating room, with unit serving as operating table, and with conventional draping for craniotomy, thoracotomy, or laparotomy applied as needed.

and the accuracy of its necessarily rapid response to the patient can be evaluated and improved.

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Renal Hypertension X-ray

Intravenous pyelography (IVP) has long been a means of evaluating the hypertensive patient clinically; structural abnormalities can thus be revealed which point to kidney disease or polycystic kidneys. With the recently renewed interest in major renal artery disease as a cause of hypertension, the standard IVP technique has been modified so as to serve as a screening procedure for renovascular hypertension.

Fifty cc. of contrast material is injected, and radiographs of the renal area are exposed at minute intervals, for five minutes. The initial film normally shows an excellent nephrogram bilaterally, with kidneys of equal size. After three minutes, the collecting system is visualized and the appearance time and the degree of caliceal filling should be symmetrical.

The pathophysiology of renovascular hypertension involves decreased renal blood flow and excessive reabsorption of water by the tubular apparatus. This causes a decreased urine flow, and urinary hyperconcentration of substances such as creatinine and radiopaque contrast agents—filtered by the glomerulus but not reabsorbed by the tubules.

Findings specific for ischemic kidney, and providing the basis for demonstrable radiographic changes, are: (1) decreased renal size (more than 1.5 cm. being very significant); (2) delay in appearance of nephogram or contrast material in the caliceal system —either generalized or localized—low flow pattern; (3) persistent delicacy and thinness of collecting system-low flow pattern; (4) hyperconcentration; (5) scalloping of ureter and renal pelvis by periureteral collateral vessels.

In 65-85 percent of patients with unilateral renovascular disease, the minute sequence pyelogram is positive; in patients with bilateral disease, it is often negative.

Another radiographic screening technique for renovascular hypertension is the urea washout test, in which, after the caliceal system is opacified with contrast material, a diuresis is induced with urea, and the washout of the opaque material is recorded radiographically. If one collecting system clearly retains the material for 6-9 minutes longer than the opposite one, a diminished urine flow is indicated, strongly suggesting a significant renovascular lesion.

Relatively simple to perform, these tests can detect over 95 percent of cases of unilateral renal artery disease as the cause of hypertension.

Bernard J. Ostrum, M.D.,
Albert Einstein Medical Center
Symposium on Vascular Disease.

Thromboembolism Surgery

Understanding of the etiology of thromboembolism has broadened, indications for surgery have been sharpened, and techniques of embolectomy have improved. Whenever an acute arterial occlusion occurs in a major vessel, and significant evidence of ischemia persists after two hours, surgical correction should be undertaken.

Done by one trained in vascular surgical techniques, exploration of an artery should be quite safe. Our goal in conservative management must be, not a viable but ischemic limb, but rather, a well-functioning, painless one.

Keeping the elapsed time (between the onset of the occlusion and the removal of the clot) to a minimum, still gives the best results. Administration of intravenous heparin is advisable and will help prevent distal thrombosis, but a lapse of twelve hours or more decreases the likelihood of total arterial reconstruction.

Use of the Fogarty embolectomy catheter has improved results, especially in the delayed series. This catheter and others like it has allowed for removal of the embolus from the bifurcation of the aorta, through two groin incisions in patients who might not have tolerated a major abdominal operation.

The incorporation of operative arteriograms in the procedure has facilitated more thorough reconstructive processes.

Aaron D. Bannett, M.D.,
Albert Einstein Medical Center
Symposium on Vascular Disease.

Aneurysm Dissection

A review of the problem of dissecting aneurysm of the aorta reveals great strides in diagnosis and in treatment. The various clinical syndromes produced by aortic dissection have been clarified. Awareness of the bizarre clinical picture has increased the use of diagnostic roentgen studies.

The disturbance is not invariably fatal, perhaps 10 percent of cases recovering spontaneously and exhibiting chronic aortic dissection. In cases surviving a few hours, we can confirm the diagnosis and attempt surgical correction.

Advances resulting from joint efforts of internist, radiologist, and surgeon have made it possible to save lives of many patients with conditions similar to those in individuals who, prior to 1955, were lost.

Samuel Baer, M.D.,
Albert Einstein Medical Center
Symposium on Vascular Disease.

Pro-Banthīne
(propantheline bromide

Intragastric photography has provided a new and precise method of measuring the effectiveness of anticholinergic drugs. The transition from gastric motor activity to relaxation seen with effective doses of such drugs takes only a few seconds and is easily demonstrated.

The importance of vagal stimulation of gastric hyperacidity and hypermotility makes such measurements particularly important in evaluating the parasympatholytic effect of drugs used in patients with peptic ulcer, gastritis, biliary dyskinesia and other gastrointestinal disorders.

Pro-Banthīne has been shown[1] to produce complete gastric motor inactivity with doses of 6 to 8 mg. intravenously. Comparison tests were made with the belladonna fraction, atropine. Measured usual dosage unit versus usual dosage unit, Pro-Banthīne was more than four times as effective as the belladonna alkaloid.

Indications: Peptic ulcer, functional hypermotility, irritable colon, pylorospasm and biliary dyskinesia.

Oral Dosage: Adequate dosage should be given for optimal results. For most *adult* patients this will be four to six 15-mg. tablets daily in divided doses. In severe conditions as many as two tablets four to six times daily may be required. Pro-Banthīne (brand of propantheline bromide) is supplied as tablets of 15 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type ampuls of 30 mg.

Side Effects and Contraindications: Urinary hesitancy, xerostomia, mydriasis and, theoretically, a curare-like action may occur. Pro-Banthīne is contraindicated in patients with glaucoma, severe cardiac disease and prostatic hypertrophy.

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Complete gastric relaxation with Pro-Banthīne. As this intragastric photograph demonstrates, gastric relaxation is attained with 6 mg. of Pro-Banthīne intravenously; the antrum is relaxed and the pyloric orifice remains open. Full intravenous doses of atropine (4 mg.) produce no measurable effect.

SEARLE

Research in the Service of Medicine

Chronic Prostatitis

More than any other genitourinary disease, this highly prevalent male affliction is surrounded by misinformation and mistreatment

RALPH J. MILLER, M.D.

Indiana, Pennsylvania

Anatomically, the prostate is a secretory gland providing a high percentage of the seminal fluid; prostatic infection is a direct result of poor drainage of the prostate's secretions. Correction of the faulty drainage is mandatory, before any plan of treatment for chronic infection can be expected to produce lasting results.

Symptomatically, the infected prostate can produce complaints ranging from those produced by acute infection of the lower urinary tract to the chronic discomfort experienced in any area of the lower back, abdomen, or lower extremities from the costovertebral angles to the calves. Partial or total impotence is common. The locations of chronic discomfort secondary to an infected seminal area may be so diverse as to lead to mistaken diagnoses.

Dr. Miller lives and practices in Indiana, where he is on the staff of Indiana Hospital. A Fellow of the International College of Surgeons, he also is a Diplomate of the American Board of Urology and of the National Board of Medical Examiners, and a member of the Northeastern Section of the American Urologic Association. He is editor of the Indiana County Medical Society Bulletin.

Inguinal discomfort occasionally is interpreted as being secondary to an early or potential inguinal hernia; paravertebral discomfort can be attributed to musculoskeletal or renal disease, and most urologists see an impressive number of patients with chronic seminal infection presenting with the "low-back syndrome," and demonstrating the lumbar incisional scars of previous orthopedic surgery. Often the complaints of low-back discomfort have persisted after surgery; not infrequently they are cleared with resolution of the seminal infection.

The presence of long-standing malaise and asthenia, secondary to chronic infection, can occasionally be demonstrated only by its absence, following effective treatment. Patients often describe, voluntarily, their increased vigor and sense of well-being. Urethral discharge, often ascribed to nonspecific chronic urethritis, most often is secondary to prostatic infection, and any urethral inflammation present will usually subside spontaneously with clearing of the primary focus. In addition, many recurrent urinary tract infections which have responded only temporarily to antibiotics and chemotherapy and are attributed, perhaps, to urinary retention or other uropathy, can be controlled well once chronic prostatic infection has been cleared.

Surgery, often recommended for such conditions of borderline prostatism, can be avoided by proper conservative care. In such cases, obstruction is often the sum total of prostatic enlargement caused by adenomatous enlargement accentuated, by superimposed infection, to the degree of symptomatology. Herein lies the explanation for the advertised "nonsurgical cures" of the quack clinics utilizing intraprostatic injection of antibiotics to achieve temporary improvement of symptoms. Often urinary infection, following spontaneous passage of calculi, or following urologic instrumentation, is the result of activation of chronic, quiescent infections of the seminal area. Clearing of the chronic seminal infection is a prerequisite to permanent cure of the symptomatic urologic infection.

Diagnosis of infection is by rectal palpation of the prostate and by microscopic examination of the expressed seminal fluid. Although the infected prostate is supposedly always boggy to the examining finger, an infected gland may demonstrate all degrees of firmness from the classic "mushy bogginess" to the "stony hardness" ordinarily attributed to prostatic cancer. Many of the chronic infections of this area—particularly granulomatous prostatitis—will produce extreme induration and often marked nodularity.

Rectal palpation, however, is becoming increasingly recognized as a highly inaccurate means of diagnosing prostatic cancer. There is no need for guesswork, with the current availability of perineal and transrectal biopsy procedures. Diagnostically important is the fact that seminal infection often cannot be objectively diagnosed on the first and at times the second or third office visit. Originally, expression of the seminal secretions will produce fluid from only the prostatic ducts and central portions of the gland, and subsequent examinations will be required to produce infected seminal fluid from more peripherally-located areas.

Treatment of chronic prostatitis is by transrectal prostatic massage; all other treatment is ancillary. Some form of antispasmodic medication is almost always initially indicated, and chemotherapy or antibiotics may be necessary, particularly in the face of spread of the infection to the vesical contents or upper urinary tracts. Antibiotic therapy alone, however, can be expected only to suppress symptoms and findings. Recurrence will most certainly occur following the withdrawal of medication. Prostatic massage, the essential core of treatment, is an unpleasant experience for the patient. If massage is not unpleasant, it has been improperly done.

Too many patients come to urologists with chronic prostatic infection which has been treated—often for extended periods—by "gentle massage" without relief of findings or symptoms. Initially, massage should be gentle, with firmness increased at weekly intervals as the patient's tolerance of the discomfort increases. Intervals between treatments can be progressively increased, as microscopic examination reveals the degree of infection of the seminal fluid to have decreased. But, to repeat: unless massage has been firm, microscopic clearing is meaningless, since only the seminal fluid from the central portions of the gland is being examined. Adequate massage includes the entire posterior prostatic surface and in addition, strips the contents of the seminal vesicles. Occasionally a patient is seen who has undergone prostatic massage with incomplete response to treatment; massage has been presumably limited to that portion of the seminal area easily accessible.

Tolerance Not Universal

A word of caution: not all patients presenting for treatment are candidates for mechanical prostatic massage. In rare cases, mechanical treatment must be discontinued because of poor patient tolerance. Although adequate massage is never pleasant, it can usually be tolerated. Occasionally, however, because of latent psychological problems, massage is contraindicated, and treatment must be limited to the use of chemotherapy or antibiotics.

"Prostate trouble" not only is surrounded by mystery in the minds of the laity, it also is often poorly understood and incompletely treated by practicing physicians. An interested physician's attention to the basic principles of diagnosis and management, however, can be doubly productive. The results of his care can occasion the patient's gratitude—a reaction highly rewarding for the physician.

Postembolism Care

Sudden occlusion of the peripheral arteries in the setting of left heart disease implies an embolic event. Systemic emboli most frequently originate from mural thrombi in the left atrium or left ventricle, or from the aortic or mitral valves. Most common causes are rheumatic and arteriosclerotic heart disease, subacute bacterial endocarditis, and, more recently, effects of prosthetic heart valves.

Approximately 25-30 percent of deaths, and an indeterminable amount of disability, result from systemic emboli in patients with rheumatic heart disease. The best correlation of mural thrombi and systemic arterial embolization in this condition is with mitral stenosis and atrial fibrillation. The risk of death from systemic arterial embolization is related to rhythm, type of mitral valvular lesion, and previous occurrence of systemic embolization.

Congestive heart failure does not increase the incidence of atrial thrombi. Left ventricular thrombosis correlates best with (1) the size of the endocardial lesions, secondary to myocardial infarction; (2) congestive heart failure; and (3) aneurysm of the left ventricle.

Prophylactic measure to prevent intracavitary thrombus formation and further embolization include:

(1) In cases of significant mitral and aortic valve lesions, surgery by open-heart technique; if the mitral or aortic valve must be replaced with a prosthesis, anticoagulation should be instituted, and continued indefinitely.

(2) Efforts to establish atrial contraction can be accomplished with drugs (quinidine and Pronestyl being the drugs of choice), or with electrical cardioversion (careful selection of cases being indicated, in view of the high recurrence rate in patients with rheumatic heart disease).

(3) Anticoagulant therapy; if surgery is not indicated, anticoagulants should be used in the hope of preventing further episodes.

(4) Control of congestive failure—important in patients with arteriosclerotic heart disease, particularly those with myocardial infarction.

Harry Goldberg, M.D.,
Albert Einstein Medical Center
Symposium on Vascular Disease.

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Richard H. Greenspan, M.D.,
Albert Einstein Medical Center
Symposium on Vascular Disease.

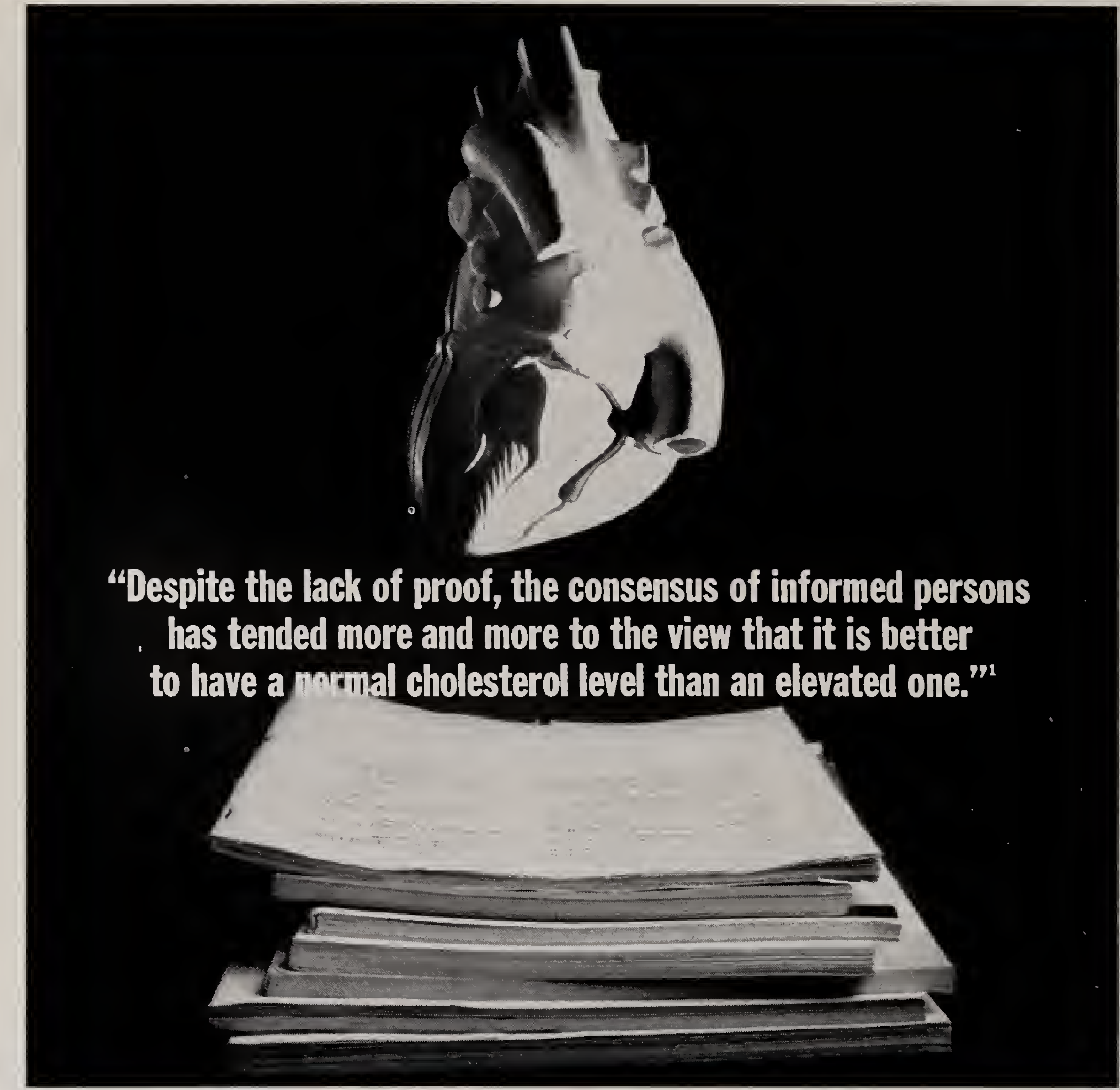
Renal Biopsy in Hypertension

Kidney biopsy is a useful diagnostic procedure in evaluating renovascular hypertension, particularly in detecting associated or underlying parenchymal diseases such as glomerulonephritis, vasculitis, and diabetic nephropathy. Biopsy should be considered if there is heavy albuminuria or granular casts, renal failure in the presence of normal-sized kidneys, or a history suggesting nephritis.

Biopsy is of potential but unproven value in detecting small-vessel renal diseases. It has been suggested that patients with moderate to advanced sclerosis of the small vessels have less chance of cure via surgery. The degree of vascular sclerosis, as determined by needle biopsy of the kidney, does not correlate closely with the para-aminohippuric (PAH) acid clearance, and may be a more sensitive method of detecting small-vessel disease. Moderate arteriolar sclerosis may be associated with normal PAH clearance values.

Jerry L. Rosenbaum, M.D.,
Albert Einstein Medical Center
Symposium on Vascular Disease.

- Between 6 and 8 percent of the children seen at State Health Department child health conferences are referred to their family physicians or community health agencies for corrective treatment.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Primary Omental Torsion in Children

Its simulation of appendicitis or other acute abdominal complications is the most vital diagnostic factor in torsion of the greater omentum

GEORGE T. R. FAHLUND, M.D.
WILLIAM P. SMEDLEY, M.D.
Danville, Pennsylvania

The fact that preoperative diagnosis of torsion of the omentum in children has not been reported is understandable when one considers that acute appendicitis in childhood is common, and omental torsion is rare. In a child's short, filmy, relatively fat-free omentum, any twist tends immediately to undergo reduction to the omentum's normal position. This presumably accounts for the rarity of torsion in the younger age group.[1]

Segmental infarction of the greater omentum may be classified as (1) primary idiopathic segmental infarction, and (2) secondary infarction, with or without torsion,[2] and due to intraabdominal adhesions, hernias, or inflammatory foci. Regardless of the etiology of the torsion, the basic disturbance is vascular and the symtomatology is essentially the same in all cases.[3]

The most frequent complaint is right lower quadrant pain, sudden in onset, and sometimes relieved by reclining. Fever and leukocytosis are about as frequent as in the usual case of acute appendicitis. The pain usually has been present for several days when the patient is presented for examination.

Many reported cases mention the chubby or obese child. Leitner et al list obesity as one of the predisposing causes of omental torsion.[4] MacLean's first case was "robust, though not obese." [1] Davis's three-year-old patient was markedly obese.[5] Neely and Holzer describe their first case as "rather chubby."[6] Our case was also obese.

■ *At the Geisinger Medical Center, Dr. Fahlund is an associate in the department of surgery, and Dr. Smedley was formerly chief surgical resident. The former is a Fellow, the latter a Candidate, of the American College of Surgeons. Dr. Fahlund lives in Danville. Dr. Smedley, who recently moved to Kingston and entered private practice, is on the surgical staffs of Wilkes-Barre General and Nanticoke State General hospitals.*

The patient with primary torsion of the omentum presents with an acute abdomen requiring emergency surgical treatment. Preoperative diagnoses of adults, in order of frequency, are: (1) acute appendicitis, (2) acute cholecystitis, (3) ruptured peptic ulcer, and (4) acute pancreatitis. In children, the preoperative diagnosis is that of acute appendicitis. The physical findings and the laboratory reports do not help differentiate the two conditions. When the surgeon enters the abdomen, serosanguineous fluid in the presence of a normal-appearing appendix, or one evidencing periappendicitis, should make him suspect omental torsion.

Case Report

A ten-year-old white male was in his usual state of good health until three days prior to admission, when he noted a dull, aching pain in the left lower quadrant. There was no nausea, nor was there a change in bowel movements. The pain shifted across the lower abdomen, and on the evening prior to admission, became localized in the right lower quadrant. The patient had eaten all meals well. His temperature was elevated on one occasion (one day prior to admission), to 100.5°. He gave no history of recent upper respiratory infection.

Physical examination revealed a well developed, obese, white male appearing his stated age. The throat was clear, with no injection or exudate. The lungs were clear to auscultation and percussion. The heart rhythm was regular, and no murmurs were heard. The aortic second sound was greater than the pulmonic second sound.

Abdominal examination revealed the abdomen to be soft, obese, with no visible scars, and without hepatomegaly or splenomegaly. There was guarding in the right lower quadrant, but no rebound tenderness. Bowel sounds were slightly hyperactive. Examination of the genitalia revealed a normal male, with the testes in the scrotum. No hernia was demonstrated.

Rectal examination revealed no rectal tenderness.

Laboratory studies revealed a white count of 10,000, with 65 neutrophils, 7 bands, 1 basophil, 23 lymphocytes, and 4 monocytes. Urinalysis was negative.

Clinical Course

The patient was admitted to the Geisinger Medical Center for observation. The day after admission, surgery was done, on the basis of a preoperative diagnosis of acute appendicitis. At operation, the appendix was found to be normal. A portion of the omentum, measuring approximately 2 x 4 cm., was twisted and infarcted; this portion was excised, and an incidental appendectomy was performed. The patient's postoperative course was uneventful.

This case was representative of the usual one involving omental torsion. Standard treatment consists of laparotomy with ligation and excision of the involved omentum. Appendectomy is usually performed. The prognosis is excellent, as is indicated in the accompanying table.

TABLE 1

Author, yr. of report	*Pt's. Age*	*Chief Complaint*	*Vomiting*	*WBC*	*Operative Procedure*	*Type of Incision*	*Result*
Erdmann, 1921	14	Pain, rt. side, abdomen	Yes	Not stated	Exc., omentum; Appendectomy (appendicitis)	Not stated	Not stated
Barsky, Schwartz, 1937	5	RLQ pain	Yes	14,400	Exc., omentum; Appendectomy	R. paramedian	Patient recovered
MacLean, 1950	6	RLQ pain	Yes	Not stated	Exc., omentum; Appendectomy	McBurney	Atelectasis Patient recovered
MacLean, 1950	4	RLQ pain	No	Not stated	Exc., omentum; Appendectomy	Not stated	Not stated
MacLean, 1950	4	RLQ pain	Yes	Not stated	Exc., omentum; Appendectomy	Not stated	Not stated
Davis, Mangels, Bolton	6	RLQ pain	No	17,000	Exc., omentum; Appendectomy	McBurney	Patient recovered
Davis, Mangels, Bolton	3	RLQ pain	No	18,000	Exc., omentum; Appendectomy	R. paramedian	Patient recovered
Farrugia-Bonnicci, Marsden, 1957	6	Generalized abd. pain	Yes	12,000	Exc., omentum; Appendectomy	Gridiron	Patient recovered
Farrugia-Bonnicci, Marsden, 1957	11	RLQ pain	No	14,400	Exc., omentum; Appendectomy	Gridiron	Patient recovered
Farrugia-Bonnicci, Marsden, 1957	8	RLQ pain	No	15,400	Exc., omentum; Appendectomy	Gridiron	Patient recovered
Neely, Holzer, 1958	10	Pain, rt. side, abdomen	No	8,400	Exc., omentum; Appendectomy	McBurney and upper transverse abdominal	Patient recovered
Neely, Holzer, 1958	11	RLQ pain	No	8,150	Exc., omentum; Appendectomy	McBurney	Patient recovered
Neely, Holzer, 1958	8	RLQ pain	No	12,400	Exc., omentum; Appendectomy	McBurney and R. paramedian	Patient recovered
Friedman, 1961	13	RLQ pain	No	14,400	Exc., omentum; Appendectomy	Not stated	Patient recovered
Brandt, Zeifer, 1964	13	RLQ pain	No	10,500	Exc., omentum; Appendectomy	McBurney	Patient recovered
Brandt, Zeifer, 1964	12	RLQ pain	No	9,500	Exc., omentum; Appendectomy	Not stated	Patient recovered
Fahlund, Smedley, 1965	10	LLQ pain, shifting to RLQ pain	No	10,000	Exc., omentum; Appendectomy	McBurney	Patient recovered

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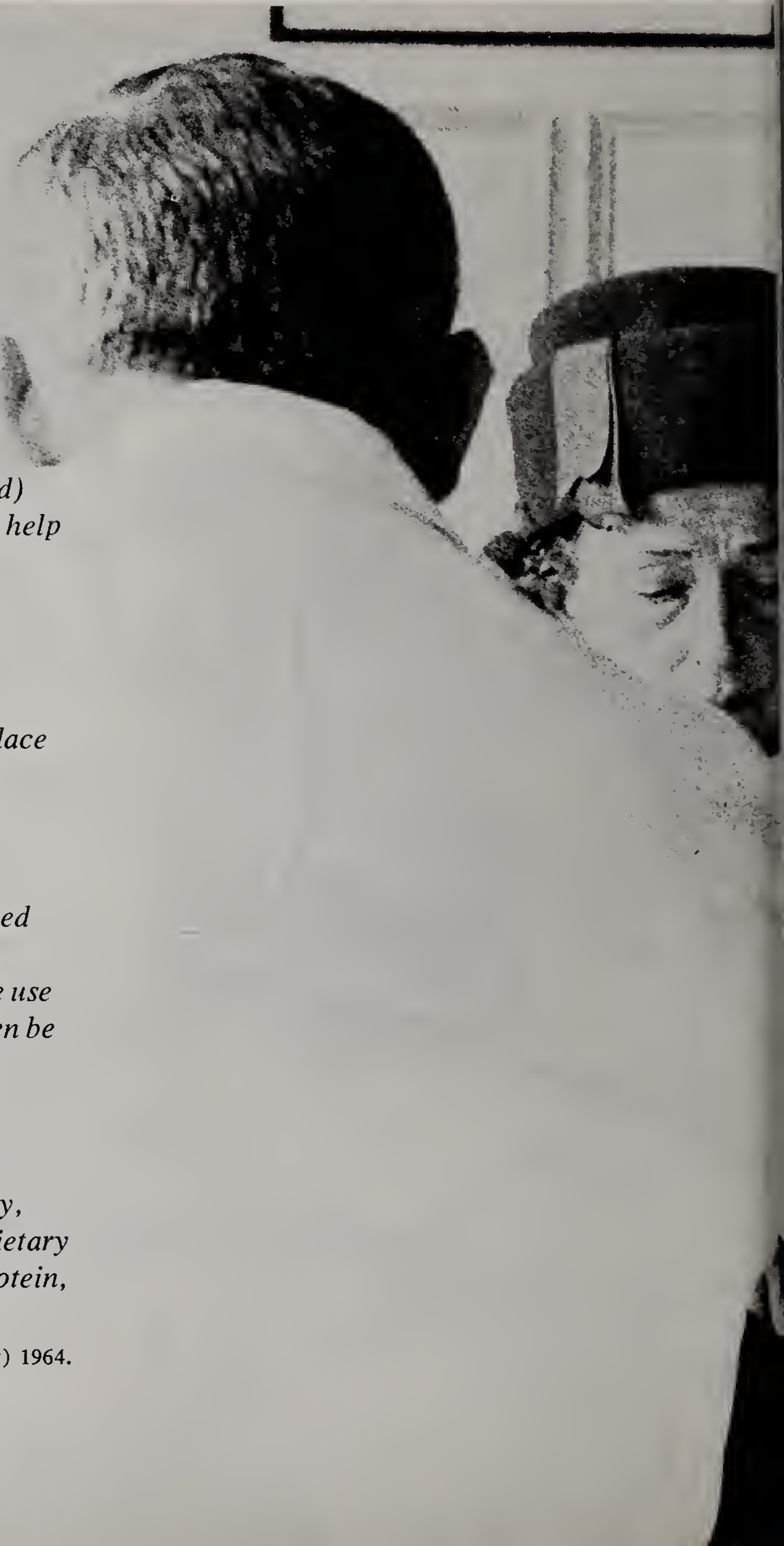

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McNeill, A. J.: Clin. Med. *8*:518 (Mar.) 1961.

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Arnold, E. T., Jr.: Geriatrics *12*:612 (Oct.) 1957.

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Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

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Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

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Riccitelli, M. L.: J. Am. Geriatrics Soc. *12*:489 (May) 1964.

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Epidemics of Tuberculosis

A review of 109 epidemics of tuberculosis in 12 countries, 84 (75 percent) of which were in schools, permits certain generalizations about such epidemics.

Outbreaks of tuberculosis result from these combined circumstances: (1) a large segment of the exposed group must be tuberculin negative (a state usually associated with a lack of acquired immunity, and seen particularly in young children or in older individuals living in geographic areas where the tuberculosis rate is very low); (2) an individual (almost invariably an adolescent or adult with pulmonary tuberculosis) must be present who is a disseminator of tubercle bacilli.

This person's sputum usually contains many bacilli which can be detected on direct examination. Culture of the sputum yields a high colony count. In patients from whom bacilli can be recovered only by culture, there usually are fewer colonies. Such patients are less likely to be contagious, and therefore are harder to identify as the sources of epidemics.

Not all patients, however, who have many living tubercle bacilli in their expectorations, are necessarily of the same degree of contagiousness. It has been reported that the number of bacilli a patient discharges into the atmosphere depends not only on the number of bacilli in his sputum, but also on the fluidity of the sputum, the frequency and forcefulness of coughing and sneezing, and such factors as whether or not the patient covers his mouth when coughing.

A case in point is the rapid spread of tuberculosis in a British military band, eight members of which developed active pulmonary tuberculosis after being infected by a young clarinet-player. Members of bands apparently exhale more air than do average persons, and do so with much greater force (probably keeping droplets airborne for a longer time, and producing a greater concentration of airborne bacilli).

Adults Are Source

Most epidemics can be traced to adults with contagious tuberculosis. In schools, teachers are usually the sources, but a bus driver, custodian, cook, or other individual who comes into close (even though brief) contact with pupils may also be responsible. In addition, many school epidemics have been ascribed to older children or adolescents with chronic pulmonary tuberculosis.

Children's potential contagiousness has long been questioned. A child with recent pulmonary primary tuberculosis may be assumed to have a few tubercle bacilli in a gastric lavage. But does this mean that the child is contagious? Since children with nonprogressive pulmonary tuberculosis rarely cough and do not expectorate, they probably do not disseminate tubercle bacilli into the atmosphere. Many pediatricians have seen children with nontuberculous pulmonary disease spend months or years in hospitals with tuberculous children and not develop a reaction to tuberculin. In the present review, there were no reports of school epidemics caused by children with primary tuberculosis.

Another important factor in epidemics is the environment in which the contact occurs. Overcrowding and lack of ventilation increase the likelihood of infection.

Spotting the Epidemic

Health personnel should promptly consider tuberculosis when a number of people in a small area have fever of unknown origin. Once tuberculin tests and subsequent chest x-rays are positive, an epidemic's presence becomes obvious.

Although now rather rare, erythema nodosum is still a valuable guide in an epidemic.

Most recognized epidemics develop in an incredibly short time. In one Norwegian village, an itinerant juggler caused 54 infections within a month.

Identifying the source case is of prime concern, and in schools should not be difficult if teachers and other personnel, and older students, are surveyed via tuberculin tests, with all reactors undergoing chest x-rays.

Recommended Care

An infected adult or adolescent should receive therapy at a hospital or sanatorium. The adolescent should not return to school until his disease is stabilized, with sputum cultures proving negative for three to six months. A juvenile patient should be treated at home or in a sanatorium. Students with asymptomatic primary tuberculosis may remain in school provided they continue to be supervised medically, and to take isoniazid daily for at least a year; the addition of PAS is a matter of opinion.

Following an epidemic, all reactors should have chest x-rays annually, indefinitely, and home contacts should be examined.

The tuberculin test, the most valuable tool for tuberculosis control, permits the classification of those who are uninfected (hence susceptible to infection), and those who have been infected previously. Individuals known as reactors (particularly in countries with a low incidence of tuberculosis), should be followed so that tuberculosis can be detected early, when it is most amenable to treatment.

* * *

• Edith M. Lincoln, M.D., *Advances in Tuberculosis Research,* Karger, Basel, New York, 1965.

George Washington's Physicians

Had the other two consultants agreed with Elisha Dick, the life of our first President might have been prolonged by tracheotomy

IRWIN RICHMAN, PH.D.
Harrisburg, Pennsylvania

Dr. Dick

Although he had been given the best medical care available in 1799, George Washington, with bluish skin and gasping for breath, was dying. His three attending physicians felt hopelessly ineffectual. They had diagnosed his ailment as "cynache trachealis" or "croup" and had treated him accordingly.

The patient was bled three times. Two phlebotomies were performed which produced "copious" bleeding. A third venesection, its effects precisely measured, emptied the old man of an additional thirty-two ounces of blood.

Even before calling the doctors, Washington had ordered the overseer of his plantation to open his vein. Long accustomed to being bled, he submitted to the eighteenth century home remedy as calmly as today's layman takes two aspirin tablets.

Blistering was induced on his throat by an application of cantharis (Spanish fly). He was purged with heroic doses of calomel, treated with an emetic, and further dehydrated by an injection (or enema). He was made to inhale "vapours of vinegar and water," and a poultice of soothing bran and stinging vinegar was placed on his raw, blistered throat.

As a last resort, to draw the infection away from his throat, additional "blisters were applied to the extremities." When death inevitably came on that December 14, one of the physicians stopped the clock in the sick room. The first President of the United States was dead.

An invective storm broke around the heads of the three hapless physicians—Dr. Gustave Richard Brown of Port Tobacco, Maryland, and Drs. James Craik and Elisha Cullen Dick of Alexandria, Virginia. In a day when medicine was more an art than a science the doctors were faulted with Washington's death.

The Monday morning quarterbacks descended. They accused Craik and company of overbleeding their illustrious patient, or of not bleeding him enough. All of the critics, of course, could have saved the General (in their own minds at least)—if only they had been called. Unnerved by the contumacy, Craik and Dick issued a detailed medical account of Washington's terminal illness in an effort to quiet the acrimony, but only time was to accomplish their goal.

What disease did "the Father of his Country" have? For years it was believed to have been diphtheria. However, modern medical historians tend to think it was streptococcal laryngitis.

After the traditional depletive remedies had been tried, one physician, Dr. Dick, suggested a radical procedure which might have saved the patient. "I proposed," the Alexandria physician wrote, "to perforate the trachea as [a] means of prolonging life and of affording time for the removal of the obstruction to respiration in the larynx. . . ."

Dick's colleagues vetoed a tracheotomy, fearing to try this experimental procedure on a celebrity. By their timidity Brown and Craik, perhaps, lost their opportunity for medical immortality, and cost Dick his.

The most interesting of the three physicians from an historical perspective is Elisha Cullen Dick, the son of Archibald Dick, a wealthy Marcus Hook, Pennsylvania, farmer and horse-breeder.

Brought up in a cultured family environment, Elisha received a classical education before entering the Medical School of the University of Pennsylvania, where he became a private student of Dr. Benjamin Rush. Later, however, for some unknown reason, he switched preceptors and placed himself under the tutelage of the pioneer anatomist Dr. William Shippen. In 1782, at age twenty, Dick and seven other members of his class, including James Craik, were awarded their M.B.'s. He never went on for his doctorate. The M.B., however, a two-year degree, continued to be the University of Pennsylvania's most popular medical degree until it was abolished in 1789. One of Dick's three sons (he married Hannah Harman of Darby, Pennsylvania) was to become the family's first M.D., in 1805.

The new nation was in flux when the young physician was ready to establish a practice, and rumor had it that the Capitol of the United States was to be moved from Philadelphia to Charleston, South Carolina. Elisha, wanting to be at the center of things, decided to move south. Stopping off at Alexandria, Virginia, he was so taken by the thriving port city on the Potomac that he decided to settle there.

He became one of his adopted city's most prominent physicians and an active civic leader. In 1804, he was elected mayor of Alexandria. One of those who introduced Freemasonry into the South, in 1799 he conducted the Masonic services at the funeral of his former patient, George Washington.

Dick found military life glamourous, and in 1794 he commanded a cavalry troop in the expedition sent into Western Pennsylvania to suppress the Whiskey Rebellion. He did not see any action, however, because the uprising, a protest against a federal tax on "mountain dew," collapsed before the army arrived. Later in life, Dick renounced militarism and the Episcopal faith and became a Hicksite Quaker. As a symbolic break with the past he even threw his pistols into the Potomac. Retrieved by a convenient bystander, the weapons are now in Alexandria's Masonic Museum.

Aside from conducting his medical practice, Dick served his city in a public health capacity, most notably as medical superintendent of the Port of Alexandria during the yellow fever epidemic of 1793. Dick was also an influential medical author and his *Facts and Observations Relative to the Disease Cynache or Croup* (Washington's ailment) brought him international recognition and caused him to be compared with medical greats such as his British contemporary, William Cullen.

In his book he reported treating victims of the illness

> ". . . by early and copious venesection, followed immediately after the operation by a dose of calomel. His patients were bled during the exacerbation of the first paroxysm while held or propped in an erect posture, and the blood suffered to flow till signs of fainting began to come on, when they were immediately laid on a bed or mattress, and as soon as they recovered from the debilitating effects of the bleeding the calomel was administered."

Supremely confident of his technique, except perhaps in Washington's case, the Alexandria-physician admitted an occasional failure—but only if bleeding were delayed!

BEDSIDE VIGIL—Despite the ministrations of three medical men, the nation's first President lies dying. His wife, Martha, is close at hand, hoping for a miracle. Washington, the victim of a throat infection (possibly streptococcal laryngitis), might have been saved by tracheotomy. (From an eighteenth century print.)

Complete Acute Coronary Care

At Allentown Hospital, special equipment, personnel, and methods are focussed on reversing death in extreme cardiac emergencies

MORTON I. SILVERMAN, M.D.

Allentown, Pennsylvania

With the need recognized for segregated, concentrated care of the patient with acute myocardial infarction, many special units have been established in hospitals throughout the nation. The scope of the problem, and the number of patients involved, are truly staggering.

Imboden[1] reports that there are 528,000 deaths annually from coronary heart disease, that each year, 1,500,000 persons can be expected to have acute myocardial infarctions, and that 30 percent of those hospitalized for the condition will die. Of that number, 50 percent die within three days of admission, another 25 percent during the fourth and fifth days, and an additional 10 percent during the sixth through tenth days.

Meltzer surveyed 761 fatal myocardial infarction cases in four Philadelphia hospitals, to determine more exactly the prime bases for the deaths. His findings indicated that arrhythmias accounted for 47 percent of the mortality; shock or heart failure, 43 percent; emboli, 8 percent; and other causes, 2 percent. The obvious conclusion was that if arrhythmias could be detected earlier, a larger percentage of such patients might be saved. The two death-producing arrhythmias—ventricular fibrillation and cardiac standstill—can in a good number of cases be treated successfully with external electric countershock and external pacing, respectively. Proper monitoring equipment, used by alert, well-trained personnel, is vital to the detection of these life-threatening arrhythmias.

Dr. Silverman's appointments at Allentown Hospital include those of: senior attending cardiologist, electrocardiographer, ward chief in internal medicine, and chief of the acute coronary care unit. He is a Fellow of the American College of Chest Physicians. His home is in Allentown.

When these important resources were combined in the coronary care unit at Presbyterian Hospital, the incidence of death within the first three days after admission decreased by 30 percent.

In a study of 175 patients at the Manchester, Connecticut Memorial Hospital, Lockward et al[3] reviewed the effect of intensive care in general on the mortality rate of those with myocardial infarction. These clinicians' statistics suggested that anticoagulant therapy plus intensive care may be more effective than either procedure alone.

Day[4] estimated that in the United States, 45,000 patients' lives could be saved yearly if acute coronary care areas were widely developed and adequately used, with physicians' training intensified in the application of electronic medicine to cases requiring cardiac resuscitation.

Brown et al,[5] in their unit at Toronto General Hospital (four-bed room with adjoining nursing station), use continuous monitoring and electrocardiography. In their experience, ventricular fibrillation was not the most common cause of sudden death; cessation of atrial activity followed by a nodal pacemaker occurred most frequently. These clinicians recorded electrical activity in some patients for up to one-half hour after clinical death. Of twenty-nine such patients, six had ventricular tachycardia, four, ventricular fibrillation, three, total arrest, three, complete AV block, and two, sinus rhythm.

Allentown Hospital's acute coronary care floor, in operation since May, 1964, was established on the basis of consideration for:

1. Total patient-care in myocardial infarction from admission to discharge.
2. The patient's psychology, since his feeling of security is important to his welfare in the immediate postinfarction period, and to his eventual rehabilitation. (If, after a few days in intensive care, the patient is told that he must leave the unit for some other, less-intensively-geared hospital area, he and his family become dismayed and alarmed.)
3. The *esprit de corps* of a highly-trained group of nurses, which is likely to remain high if the group can consistently follow a patient until his discharge. This "team spirit" can benefit the patient, just as a lack of it can have an adverse effect.
4. The opportunity to improve nursing care by establishing a complete floor of eighteen beds, with gradations of nursing care (depending on the patient's changing needs) by a corps of nurses who follow the patient throughout his entire term on the floor.
5. The hope that this example of superior segregated care will favorably affect policies and practices in categories of general hospital care—for the benefit of patients, and for the most efficient use of nursing staffs in short supply.

Equipment and Procedures

Of Allentown Hospital's eighteen intensive-unit beds (located in the conventional manner), six—private and semiprivate—were wired for complete monitoring, which includes determinations of blood pressure, peripheral pulse, and electrocardiogram (ECG) pulse; another six were wired for partial monitoring (blood pressure and peripheral pulse determinations). On a central panel in the nursing station, four patients can be electrocardiographically monitored at one time. A portable ECG-scope can be attached to a panel in each room.

A Lown cardioverter and a Westinghouse mechanical chest compressor are available; a specially-constructed cart with all necessary drugs, an Ambu respirator, and various paraphernalia needed for a cardiac emergency, can quickly be wheeled to the bedside. High-low electric beds, and contoured cardiac chairs, aid patient comfort and nursing staff efficiency.

A two-way communication system facilitates efficient use of time and personnel. By means of a code button on the telephone in each patient's room, the switchboard operator is alerted, and immediately sends out a prearranged code signal to activate intensive medical staff efforts to reverse imminent death.

No rules have been set for selecting patients for emergency resuscitation efforts, the physician in charge of each patient being allowed to use his discretion in the matter. As a result, 12-15 percent of patients treated have been successfully resuscitated; an additional 15 percent have experienced partial resuscitation (surviving for another 1-12 hours). With closer selection of patients for resuscitation, undoubtedly these percentages would increase.

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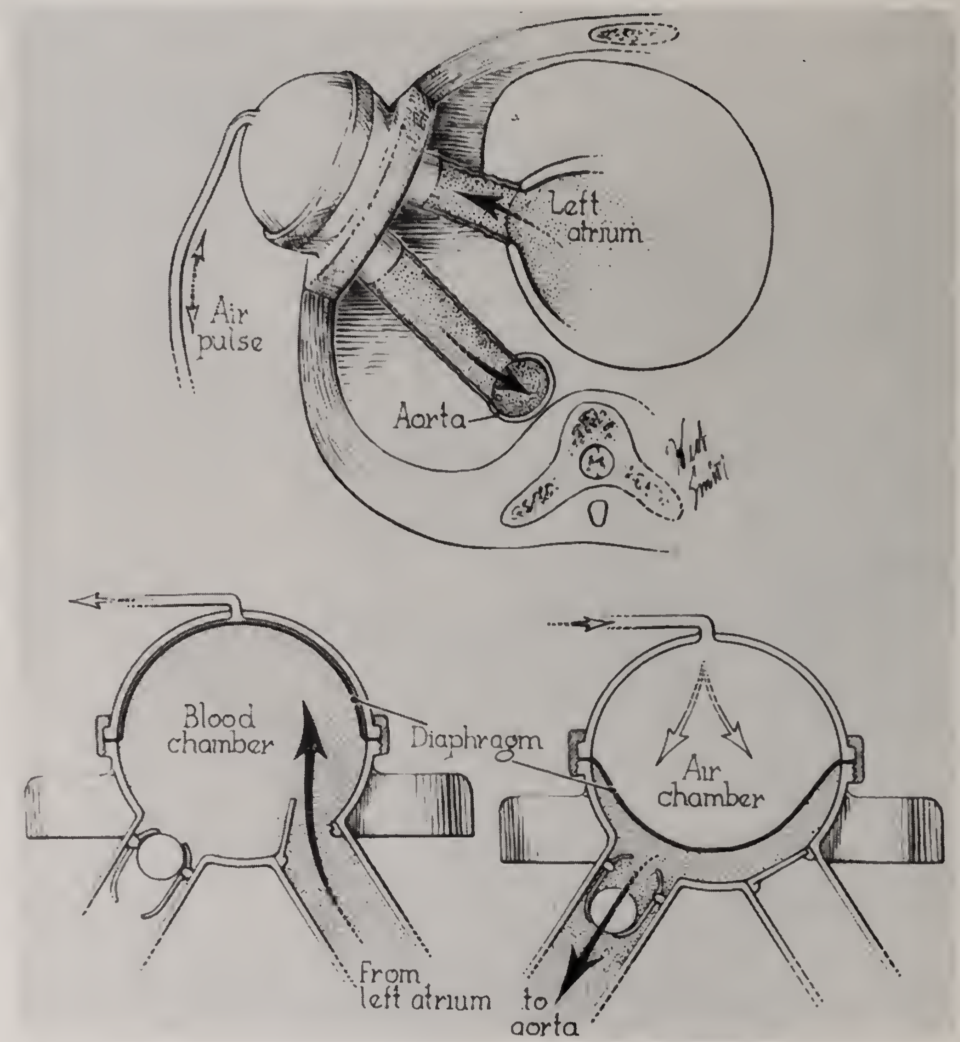

SO THE HEART MAY REST—Schematic drawings of the artificial heart developed by Drs. Michael E. DeBakey and Charles W. Hall together with William W. Akers—all of Baylor University, Houston, Texas. The pump was initially used at Methodist Hospital, Houston.

There
was a time
when it was thought
that all
diabetics were
insulin deficient...

BUT THAT WAS BEFORE new techniques demonstrated that overweight, stable adult diabetics may have excessive postprandial levels of circulating insulin.

NEW RESEARCH is focusing attention on metabolic problems of the overweight, stable adult (ketoacidosis-resistant) diabetic and suggests that DBI-TD is the product of choice together with a proper diet in the management of these patients. For the ketoacidosis-prone diabetic, insulin is still the essential hypoglycemic agent.

THE PROBLEMS	A PRACTICAL SOLUTION
Insulin release in response to hyperglycemia is excessive	DBI-TD lowers blood sugar and may reduce excessive insulin release toward normal
Fat mobilization and utilization are suppressed and lipogenesis accelerated by excessive endogenous insulin	DBI-TD lowers blood sugar without promoting lipogenesis; permits fat mobilization and utilization
Hyperglycemia, glycosuria and ketoacidosis resistance with continued weight gain or maintained obesity	DBI-TD lowers blood sugar, controls glycosuria and aids in gradual weight loss*

*Anorexia has been suggested as a possible basis for weight loss. However, controlled studies suggest that it is due to the mechanism of drug action. Comparable dosages of DBI-TD do not induce weight loss or lower blood sugar in nondiabetic subjects.

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Dosage: 1 to 3 capsules daily. **Side Effects:** Gastrointestinal, occurring more often at higher dosage levels, abate promptly upon dosage reduction or temporary withdrawal. **Precautions:** Occasionally an insulin-dependent patient will show "starvation" ketosis (acetonuria without hyperglycemia) which must be differentiated from "insulin-lack" ketosis which is accompanied by acidosis, and treated accordingly. Lactic acidosis has been reported in nondiabetics and diabetics treated with insulin, with diet, and with DBI. Question has arisen regarding possible contribution of DBI to lactic acidosis in patients with renal impairment and azotemia and also those with severe hypotension secondary to myocardial or bowel infarction. Periodic B. U. N. determinations should be made when DBI is administered in the presence of chronic renal disease. DBI should not be used when there is significant azotemia. Any cardiovascular lesion that could result in severe or sustained hypotension, which may itself lead to development of lactic acidosis, should be considered cause for immediate discontinuation of DBI at least until normal blood pressure has been restored and is maintained without vasopressors. Should lactic acidosis occur from any cause, vigorous attempts should be made to correct circulatory collapse, tissue hypoxia, and pH. **Contraindications:** Severe hepatic disease, renal disease with uremia, cardiovascular collapse. Not recommended without insulin in acute complications of diabetes (metabolic acidosis, coma, severe infections, gangrene, surgery). **Pregnancy Warning:** *During pregnancy, until safety is proved, use of DBI, like other oral hypoglycemic drugs, is to be avoided.*

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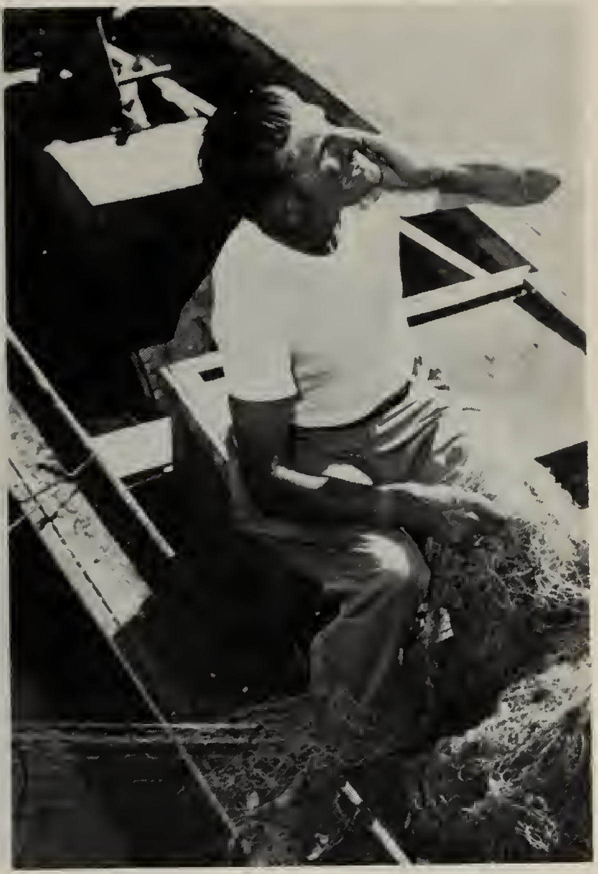

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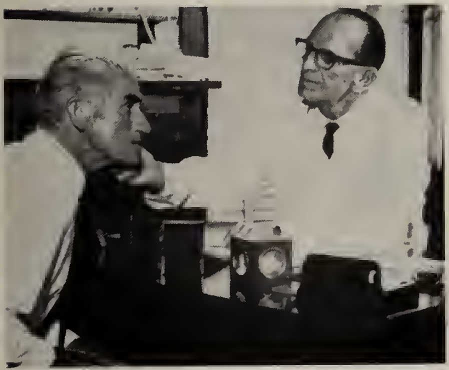

"This" being reasonable coverup from the sun which is the principal cause of skin cancer.

These scenes are from the American Cancer Society film, "Sense In The Sun," the hub around which the Society will pivot a whole June campaign of radio spots, TV showings of the film, news stories, posters, and other approaches to sun worshippers and sun workers as they enter the long, hot summer.

The appeal will be to avoid excessive exposure to sun over long periods to prevent skin cancer; and excessive exposure for even a few hours to avoid severe sunburn, which can make one sick and spoil a vacation.

This campaign is part of our constant effort to alert people to possibilities for cancer prevention and cure so that they will come to you, doctor, in time.

We will be happy to send to you a poster for your office if you will call your local ACS.

PENNSYLVANIA DIVISION

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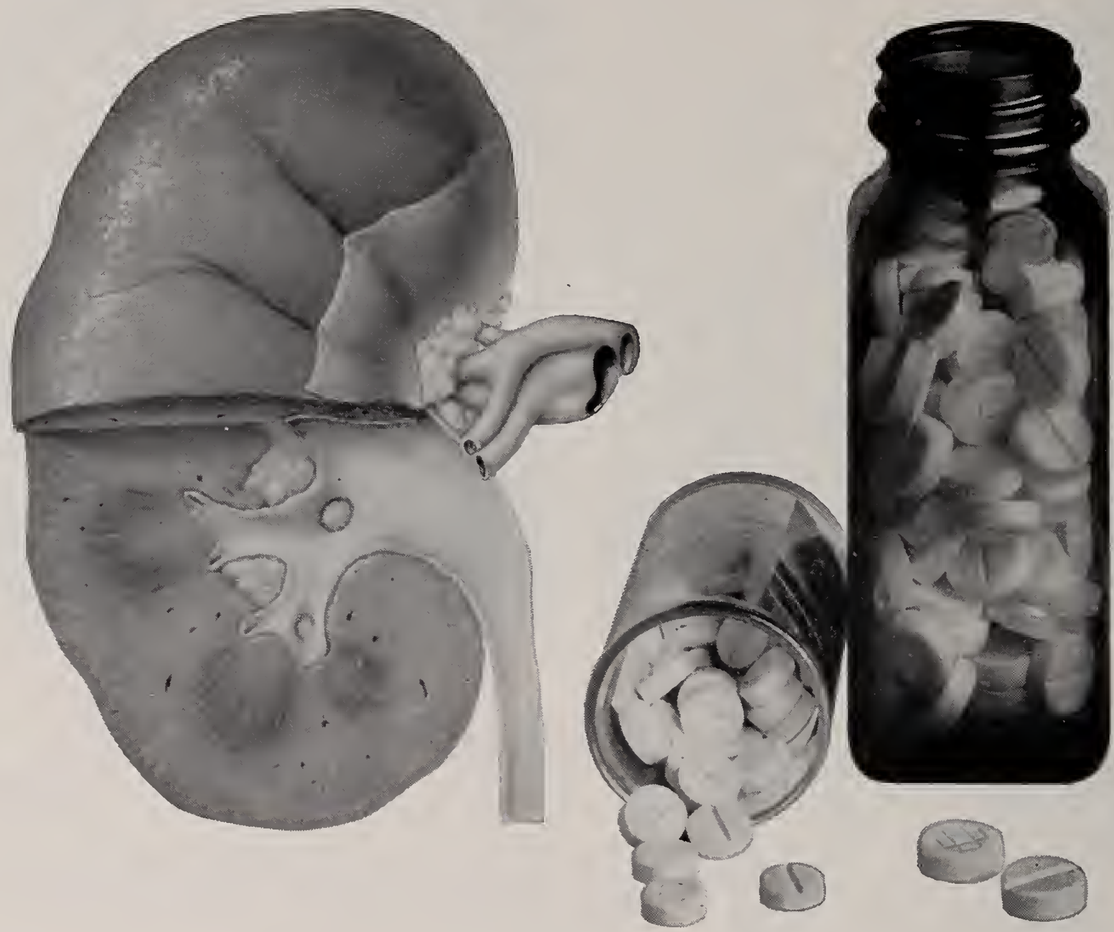
american cancer society

PENNSYLVANIA CANCER FORUM PAGE—presented cooperatively by the Council on Scientific Advancement of the Pennsylvania Medical Society, the Pennsylvania and Philadelphia Divisions of the American Cancer Society, and the Cancer Control Section, Pennsylvania Department of Health.

at Merck Sharp & Dohme...



understanding... precedes development

The development of chlorothiazide and probenecid were events of major importance, but perhaps even more important for the future was the Renal Research Program by which they were developed. When Merck Sharp & Dohme organized this program in 1943, it was expressing in action some of its basic beliefs about research:

- Many problems connected with renal structure and function were still undefined or unsolved. The Renal Research Program would begin its basic research in some of these problem areas.
- From knowledge thus acquired might come clues to the development of new therapeutic agents of significant value to the physician.

For example, the Renal Research Program put fifteen years into this search before chlorothiazide became available. But because these years had first led to a greater understanding of basic problems, the desired criteria for chlorothiazide existed before the drug was developed.

Along with other research teams at Merck Sharp & Dohme, the Renal Research Program continues to add new understanding of basic problems—understanding which will lead to important new therapeutic agents.

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where today's theory is tomorrow's therapy

Cutting the Cloth to Fit

The state secretary of health shares his views on today's health challenge

CHARLES L. WILBAR, JR., M.D.
Camp Hill, Pennsylvania

The men of two thousand years ago wore togas and flowing robes. Those of two centuries ago wore buckles on their shoes, long stockings, knee-length trousers, cutaway coats, and fancy shirts. In 1900, men wore "derbies" and spats. Today's male apparel is a far cry from that of any past era.

These sartorial changes are paralleled in the vast changes in the healing arts. At the beginning of the Christian era, a patient was likely to be given some revolting concoction for ingestion, or to have an animal sacrificed in his behalf—regardless of the nature of his illness. Eighteenth century patients were usually treated by means of bleeding, purging, or cupping. At the beginning of the twentieth century, strong laxatives, phenol or iodine antiseptics, and fever-reducing drugs were widely used. Over the centuries, the practice of medicine has changed drastically and dramatically, and the most spectacular changes have occurred in very recent years.

With developments in pharmacopoeia and procedures, increased health knowledge has markedly affected mankind. Twenty-three years have been added to the average life span in the past sixty-six years; previously, nineteen centuries had been required to add that number of years to man's life.

The remarkable changes in morbidity and mortality thus far in this century have had tremendous impact on prevention and treatment of disease. Acute infectious and communicable diseases have been largely brought under control, and the challenges to today's health practitioners lie in the areas of chronic diseases, accidents, and environmental health problems.

Meeting these challenges requires strong public interest, and the desire to apply methods of keeping well and prolonging life. We in public health continually point to the growing gap between scientific knowledge gained through research, and the widespread application of this knowledge. Bemoaning an apparent lack of appeal to the popular fancy, of the use of scientific health discoveries, we have attempted to fan sparks of interest into a steady flame. To some degree, we have succeeded.

Prompt Action

When a good health practice becomes public knowledge, most people (including political leaders), want to do something about it, drastically and quickly. In order to be elected and remain in office, leaders must follow the wishes of their constituents, so that their statements and actions will stand as evidence of popular desire.

Just as fire, useful in many ways, can be harmful if not controlled, so should a bright flame of public interest in health matters be explored to greatest advantage, not permitted to "run wild," needlessly wasting time and money.

We must keep a certain balance between speedy results and careful, effective accomplishment. When interest is high, people are impatient for results: they want pollutants removed from streams in short order; they want the air clear and clean within a few months; they want widespread immunizations for communicable diseases; they want universal high quality, economically feasible medical care; they want all known accident-prevention measures to be used in machines, roads, and buildings; they want chronic diseases brought under control.

Recent laws and ordinances testify to this popular attitude. The people and their political leaders have thrown down the gauntlet: public health practitioners must either "get on with the show," quickly, or find authority vested in others who will do so.

In recent years, the desire for quick action has at times been so pressing that the administration of health matters has been given to other than health departments—in some cases, to newly-created government agencies. Public health activities are being administered by welfare, labor, or education departments, or by separate agencies handling particular health programs such as those of vocational rehabilitation, radiation protection, the needs of crippled children, nursing home problems, governmental medical care, or poverty. The administration of public health has indeed become a "many-splintered thing."

Capable Personnel

Yet public health personnel have the knowledge, training, and experience they need to do a prompt, comprehensive job effectively. Why, then, aren't we administering all health activities in one place?

Over the decades, public health has become a complex scientific entity. The knowledgeable scientific individual cannot always be a flag-waving leader. Difficult if not impossible is the task of commanding public respect for capability in a complex field, while at the same time holding the public fancy as a political leader. I believe the public wants to be able to have confidence in its health department, and I know that an appropriate public relations program is essential. But the factors which contribute to creating a truly confidence-inspiring image are not compatible with histrionics or with political partisanship.

• This article is based on a speech given by Dr. Wilbar, Pennsylvania's Secretary of Health, at the 1965 Annual Health Conference, University Park, Pennsylvania.

As a tailor must cut the cloth to fit the style of the times, so must the health worker accommodate his activities to the needs and desires of the times. The "cloth" of public health is woven from resources such as funds, workers, and equipment, which, working together, supply services and information.

What a man wears depends not only on what the tailor recommends, but on what the man wants. In the field of health, people want to "feel good physically and mentally." To this end, health personnel working in the public interest must point out the need for specific measures to prevent illness: immunizations, control of environment, proper diet and exercise, good personal hygiene practices, adequate rest, and safety precautions. Further, certain measures are pertinent to "living with" chronic illness or disability. One must understand life's ups and downs in order to live in relative happiness.

Major Recent Changes

Advances in scientific knowledge have accelerated rapidly. Each medical specialty publishes pertinent abstracts from the current literature, a protracted process that often lags behind scientific discovery. Yet the public news media tend to glamorize findings and potential findings which strike their fancy, reinforcing the impression that although many and varied activities seem to be going on in the health field, there is always a gap—and a constantly-increasing one—between scientific knowledge and its popular application. We health people know that this impression is correct.

In this nation, although cancer of the large bowel kills about as many people each year as do automobile accidents, cancer authorities label two-thirds of these deaths "unnecessary." A simple annual examination among adults can reveal this cancer early, when it is highly amenable to surgery.

Another example of "lag" is in the matter of glaucoma. This condition is the second-ranking cause of blindness in our state and in our nation—yet this blindness is almost entirely preventable. The need is simply for an annual measurement of eyeball tension or visual fields in persons over forty years of age, and proper drug (or possibly surgical) treatment for individuals in whom tension is shown to have increased.

Other Problems

A few years ago, an annual meeting of the Pennsylvania Health Council was devoted to the significance of the population explosion. But even now, we have not adequately faced this problem. The former ostrich-like attitude toward study and action regarding family planning is, however, fortunately giving way to a more realistic approach.

Chronic ailments are so widespread and require such intimate personal action on the part of the patient that health practitioners must pool their efforts in order to deal with the problem. This means education of patients concerning (1) early symptoms of chronic diseases, (2) the need for mass testing when such tests are available, and (3) where (or where not!) to go for diagnosis and treatment.

Nearly all streams are polluted—some to an alarming degree—and efforts to prevent pollution are not keeping pace with the additional amounts of pollutant material being added to waterways. Problems of air pollution run a close second, particularly in industrial areas. Protection against excessive nuclear radiation in the environment is becoming more important and complex.

Food must provide adequate nutrients, free of harmful contaminants. The use of potent insecticides, herbicides, and other chemicals make the problem of keeping food and drink pure increasingly difficult. Also of vital concern is the safety and purity of drugs.

Mental health and mental retardation problems are increasing; perhaps society's complexity, and medicine's improved diagnostic methods, are helping to bring more of such cases into focus; but facilities fall far short of the need.

Accidents rank fourth as causes of death in the general population, and first among victims from one to thirty-five years of age. Although Pennsylvania's accidental-death rate is one of the lower ones, among the states, much remains to be done. By means of concentrated accident-prevention programs in certain communities, mortality and morbidity rates have been reduced, but intensive educational work is needed if such programs are to become widespread. However, not only in accident-prevention programs, but also in medical self-help training, ambulance attendant training, and poison control programs, Pennsylvania is outstanding as compared with many states.

Trends

In the face of today's health problems, the public continues to demand official action. At the federal level, the tendency is clear—toward rapid increase of new laws, appropriations of large sums of money, increased federal controls, and brand-new patterns of administration.

These tendencies, sometimes even boldly called "preemption of authority," have been rationalized on the basis that some state and local governments are not moving ahead rapidly enough in these areas of endeavor.

Faced with new laws, new methods of implementation, and new problems, the health field is faced, too, with a new and staggering challenge. This is no time for members of the health professions to refuse to take part, under new and different rules. Instead, we must continue not only to increase our knowledge and skill, but to offer them to help meet today's popular accelerated health objectives, which we have helped to foster.

The Heart Disease, Cancer, and Stroke Program Moves Ahead

Planning stages anticipate effective implementation of health care projects

A. REYNOLDS CRANE, M.D.

Philadelphia, Pennsylvania

Throughout the nation, action is under way to make the proposed regional medical care centers a meaningful reality. The Delaware Valley is one of the areas in which decisions are being made by knowledgeable leaders in the health field, with the goal of the best possible use of authority, funds, and facilities under the federally-sponsored program.

The DeBakey Commission's report, *A Program to Conquer Heart Disease, Cancer, and Stroke,* plus subsequent legislation (Public Law 89-239), calls for regional integration of medical facilities and manpower—from the most basic research effort, through teaching units, hospitals, and related agencies, to the most remote physician and patient (remote as to contact, not necessarily as to geographical location), to provide the physician with needed knowledge and tools, and the patient with the benefits of medical advances.

With much detail planning needed to implement this concept, there is great interest at all levels as to how each person involved will be affected. The man in basic research wonders whether or not this will usurp his time and talents, and restrict his resources; the full-time teacher wonders what is expected of him, and how his activities will be affected; the physician and his patient wonder how their relationship may change.

Relatively few individuals understand what is going on, but all should realize at the outset that no clearly defined pattern is stipulated; at this early stage, regional leaders are attempting to apprize themselves of the ideas, needs, desires, and capabilities of each of the many groups concerned in providing health care services; from these, it is hoped that a workable, beneficial plan will evolve.

■ *Dr. Crane is PMS Trustee and Councilor for the First Councilor District, director of the Ayer Clinical Laboratory of Pennsylvania Hospital and the Benjamin Franklin Clinic, and professor of pathology in the University of Pennsylvania School of Medicine.*

I. General Principles

Briefly stated, the purposes of Public Law 89-239 are:

1. To encourage cooperative arrangements, regionally, among medical schools, research institutions, and hospitals, for purposes of research, training (including continuing education), and related demonstrations of patient care in heart disease, cancer, stroke, and related diseases.

2. To afford a means of helping physicians bring to their patients the benefits of the latest advances in diagnosis and treatment.

3. To improve health manpower and facilities throughout the nation without interfering with existing patterns of practice and financing.

Grants awarded under the law will be administered by the Division of Regional Medical Programs, headed by Robert Q. Marston, M.D., formerly vice-chancellor of the University of Mississippi's Medical Center and dean of its School of Medicine. The law is an extension of the Community Facilities and Resources Act of 1961, aimed at eliminating the lag presumed to exist between acquisition of new medical knowledge and its effective application to patient care on a broad scale. Two basic guidelines toward this end are:

1. Development of regional *programs,* distinct from regional *complexes,* with integrated use of existing organizational patterns and facilities rather than construction of huge centers. Although at the moment funds for new buildings are interdicted, money will be available for improving the functional capacities of existing facilities, in an integrated program. Although regions or geographic areas are to be defined locally rather than nationally, it is understood that they need not be limited by state lines; rather, they will be determined by factors such as travel routes, communications facilities, business or industrial activities, and existing medical reference routes—which make of an area a homogenous unit.

2. Development of regional programs about a central hub such as an existing medical center, university, or other unit, as a logical focal point. The development should coordinate existing facilities and manpower resources, and, in the words of the University of Pennsylvania's vice-president for medical affairs, Luther L. Terry, M.D., "break down the walls of the universities," permitting a two-way flow through the spokes of affiliated and outlying institutions and groups.

II. In Pennsylvania

In August, 1965, the Pennsylvania Medical Society formed a Committee on Heart Disease, Cancer, and Stroke, consisting of the deans of all the medical schools in the state, the commissioner of public health, and PMS officers and the chairmen of various commissions, with Drs. Richard A. Kern, chairman, and A. Reynolds Crane, co-chairman. At two meetings, the program's import, and the means of working effectively towards its implementation, were discussed. Pennsylvania *per se* was not deemed one geographic area, but a composite of three: western Pennsylvania and portions of contiguous states, with the hub in Pittsburgh; central Pennsylvania, with the hub in Harrisburg; and the Delaware Valley (possibly encompassing parts of New Jersey, Delaware, and eastern Pennsylvania, with Philadelphia as a hub). The committee was accordingly divided into units to promote true regional planning.

III. In the Delaware Valley

With its five medical schools, Philadelphia—the natural center of the Delaware Valley complex—presents a difficult problem as regards the organization of even the hub. Existing, however, is the University City Science

Center (UCSC), developed to establish Philadelphia as a center for divers scientific endeavors in all aspects of the physical and biological sciences. The medical schools, as well as hospitals, universities, and other institutions in the area, are stockholders in this center.

One Program

It was readily agreed that just one program should be developed for Philadelphia and the Delaware Valley, with the UCSC the mechanism through which the hub would be organized. A Committee on Heart Disease, Cancer, and Stroke of the board of directors of the center was appointed, consisting of the medical school deans, with Glenn Leymaster, M.D., of the Woman's Medical College as chairman. This committee then appointed consultants representing such groups as the medical societies and departments of public health of Pennsylvania, New Jersey, and Delaware, and the Heart Association of Southeastern Pennsylvania. Representing the PMS are Drs. A. Reynolds Crane, Richard A. Kern, and William A. Limberger.

The deans' committee has met regularly, and has held several sessions with the consultants, attempting to develop a basic approach to organizing an integrated effort based on the concept that the function of the medical schools is to find "the ways of providing care, not in continuing to render service, with an ultimate role in involvement in health service only to the extent that such is needed to accomplish their educational mission, and in finding the means to extend their educational concerns to as many practicing physicians, hospitals, and clinics as possible in assuring the optimum in graduate and continuing education to all who may desire it."

Each medical school has submitted its ideas for planning how to proceed; along with suggestions from such other sources as hospitals, societies, and associations, these will be molded into one plan. The UCSC is expected to be a small core, with the program expanding to schools, hospitals, and practicing physicians.

Area Served

The Delaware Valley Region, not yet defined by the UCSC, will undoubtedly include Philadelphia and adjacent counties, and may extend to the Scranton-Wilkes-Barre area, northern Delaware, and possibly southern New Jersey. Concepts of antiguous regional programs will guide the definition of the area, as will the desires and patterns of patient referral that exist in peripheral segments of each region as it is developed.

IV. Regional Planning

1. *Pre-planning:* This is represented by current activities through the UCSC and by the deans' efforts to mold concepts of financial needs so that plans of each school and institution may be coordinated into one approach, leading to application for a planning grant. Guidelines and application forms for grants were to be available in February, and the National Advisory Council on Regional Medical Programs was to begin reviewing applications in April; on this councils' recommendations, the Surgeon General of the USPHS will award grants.

2. *Planning:* The period following receipt of funds (from twelve to twenty-four months) is designated for planning, with details being set as to how regional resources can best be coordinated. Pilot studies, or phases of a plan, may possibly be instituted during this time, provided such studies pertain to furthering the planning effort.

Planning must include all existing facilities and manpower resources such as medical centers, affiliated hospitals, community hospitals, practicing physicians, paramedical personnel, medical societies, cancer societies, and heart associations. A region is not to be segmented like a piece of pie, but rather, it must be totally integrated in one plan (although some variations of this concept may prove acceptable). For fiscal 1965-6, funds totaling $25 million were allocated throughout the nation for planning (not for implementation).

3. *Operative:* This is the period when plans are put into effect. In the present pre-planning stage, little can be said about the operative phase. For 1966-7, a fund of $90 million was to be made available—for 1967-8, $120 million. Neither amount has actually been funded; allocations made available will doubtless be influenced by the channeling of funds into other federal commitments such as those in southeast Asia and the many projects of the "Great Society." One evidence of this is the President's recommendation that $45 million, rather than the $90 million originally earmarked, be funded for 1967-8.

V. Comment

The law we have been discussing does not aim to replace existing programs of education and patient care, but rather to integrate, strengthen, broaden, and supplement them, regionally. Funds now available for research and teaching will presumably continue to be available, the new funds in the operational phase being used to promote the wide application of new knowledge.

Neither is there at the moment any intention of segregating heart disease, cancer, and stroke by limiting the activities of any institution or group to any one of these diseases. As the program develops, however, it may well be that in a given segment of a regional area, an institution or group will eventually become the focus of one entity, should its competency and manpower so develop.

It is noteworthy that the legislation includes "related diseases," so that in the minds of those who developed the concept, the regional programs really encompass total medical care. It is important, therefore, that everyone understand that the basic thrust is to bring the latest in medical care to every patient in a region. The hope is for strengthening the lines of communication, to make every institution and every physician an affiliate of the hub.

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Hospital Utilization Unit Improves Medical Consultations

PAUL P. SOMOZA, LL.B., M.H.A.

Philadelphia, Pennsylvania

Responding to the challenge of spiralling hospital costs, the medical staff at Temple University Hospital formed its first hospital utilization committee in the fall of 1964. One of its initial projects was an evaluation of the hospital's medical consultation set-up, analyzed from two points of view: its efficiency in alerting the consultant to a request, and the design of the consultation form. The communication system then in use was fairly typical: written requests were conveyed from the nursing units by messenger service to a central point, where it was retrieved by the consultant. Unless the requesting physician made a point of apprizing the consultant of the request, the consultant remained ignorant of the request until he or his staff visited the central pick-up point—in this case, the hospital's information desk.

To measure the system's efficiency, the interval of time between the writing of the request and its acquisition by the consultant was studied. A study sample of one hundred consultation requests were time-and-date stamped at three points: at the nursing stations by the unit clerks, when the requests were turned in by the consultor for delivery; by the information clerk at the information desk, when the requests were delivered by the messenger service; and by the consultant or his staff at the information desk when the requests were picked up.

Upon analyzing this study sample, the utilization committee was startled to learn that an average of 22.5 hours passed from the writing of the sampled requests and their acquisition by the consultants.

■ *Mr. Somoza is administrative assistant at the Temple University School of Medicine and Hospital. He belongs to the American Hospital Association, the American College of Hospital Administrators, and the Medical Committee for Human Rights. His home is in Philadelphia.*

The committee recognized, however, that the efficiency of the consultation system must be viewed in terms of the promptness with which consultants fulfill consultation requests, not on how quickly the requests are brought to their attention. To this end, one hundred closed charts containing consultation reports were reviewed. This analysis exposed another disturbing fact: the mean time between initiation of the sample consultation requests and their fulfillment by consultants was 40.3 hours.

To reduce this excessive period of time, the committee considered several alternatives, then presented to the hospital's administration an approach that it accepted and implemented. Today, in addition to the described system of retrieving written requests at the information desk, consultants at Temple University Hospital are now phoned or paged by the unit clerks on the nursing floors as soon as a consultation request is made out. A followup study has provided the following gratifying results: the time between initiation of the request and its acquisition by the consultant has been reduced from 22.5 hours to 2.6 hours. More significantly, the followup study showed a reduction of mean initiation-to-fulfillment time from 40.3 hours to 11.6 hours. This latter improvement was tested for significance. The test permitted the conclusion that the 70 percent reduction in the mean initiation-to-fulfillment time was due to the introduction of the phone call into the system of communicating consultation requests.

The utilization committee, concurrent with its analysis of the consultation system's efficiency, also reviewed the design of the request form. The old form was a single sheet of paper with space for patient identification, the consultor's request, and the consultant's findings. This form was routed to the information desk and used by the consultant for his report. The new form follows the basic design of the old, but is now in triplicate: the first copy is routed to the information desk by the unit clerk to back up the phone call, in case the unit clerk fails to reach the consultant; the other two copies are attached to the patient's chart. After the consultant writes his report, he may keep one of the copies for his own file; availability of this copy was provided principally to overcome the practice many consultants had followed, under the old system, of dictating their report in their offices in order to assure having a copy. This practice left the requesting physician ignorant of the findings until the report was mailed, attached to the patient's chart, or reported verbally by the consultant.

The new form has an added bit of information which has proven helpful: in order to let the consultant know what is expected of him, three statements prefaced by boxes for checking were included, reading: consult only, consult and follow, accept for transfer.

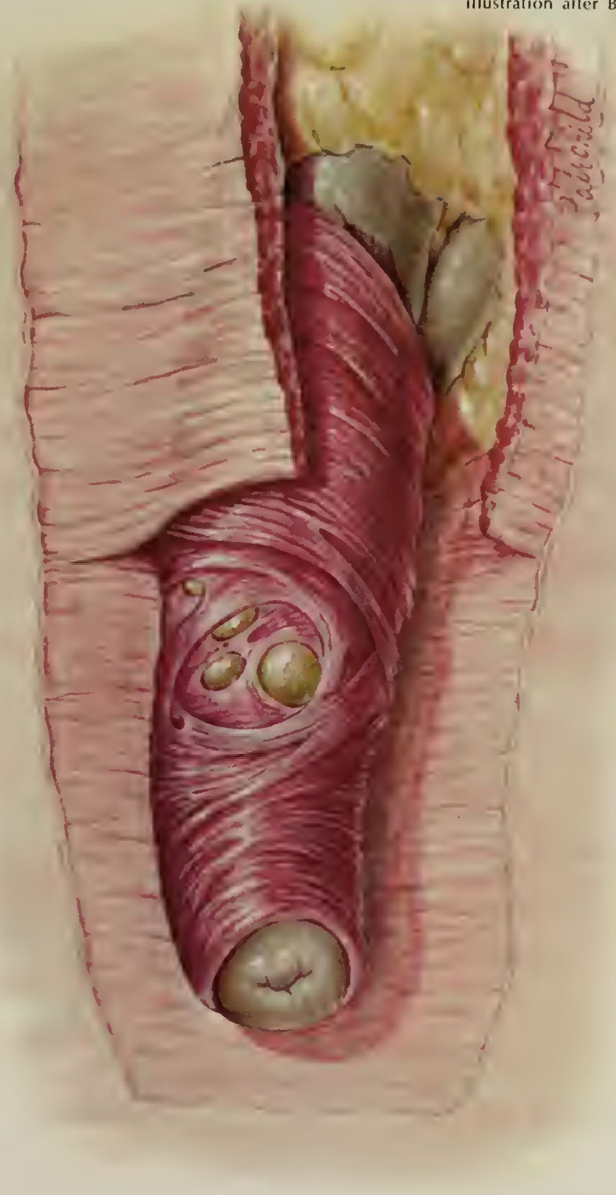
Survey of Acceptance

To ascertain the medical staff's acceptance of the new system and form, a questionnaire was distributed. The response was most encouraging, 55 percent of the questionnaires being returned. They reflected a high degree of acceptance, and several useful suggestions were offered which have been approved and are being incorporated into the revised form.

This initial success has stimulated the utilization committee to study other hospital systems whose improvement can favorably influence hospital utilization. These studies are in addition to the committee's preparation for the rigors of medicare. This committee, consisting of seven physicians and the directors of nursing and social work, is demonstrating the value of hospital utilization committees, and is establishing a solid foundation for the type of professional review that modern medical economics requires.

• Pennsylvania in April, 1965, had thirty-four hospitals with separate psychiatric units, the Public Health Service reports.

illustration after Boyden



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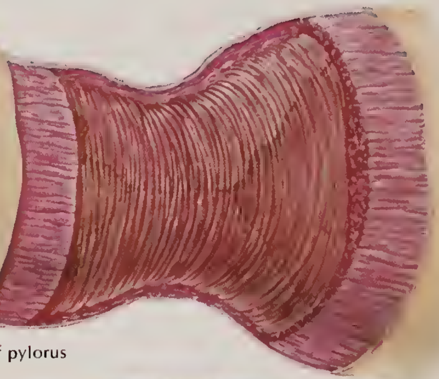
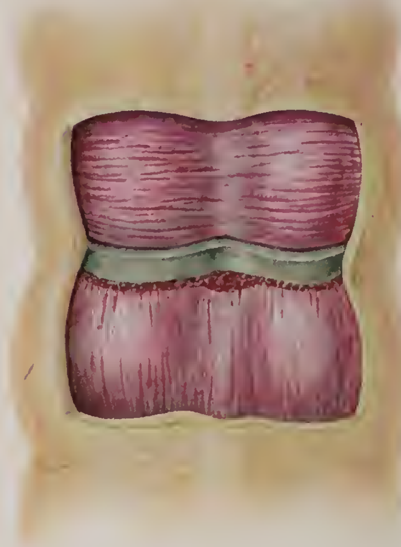
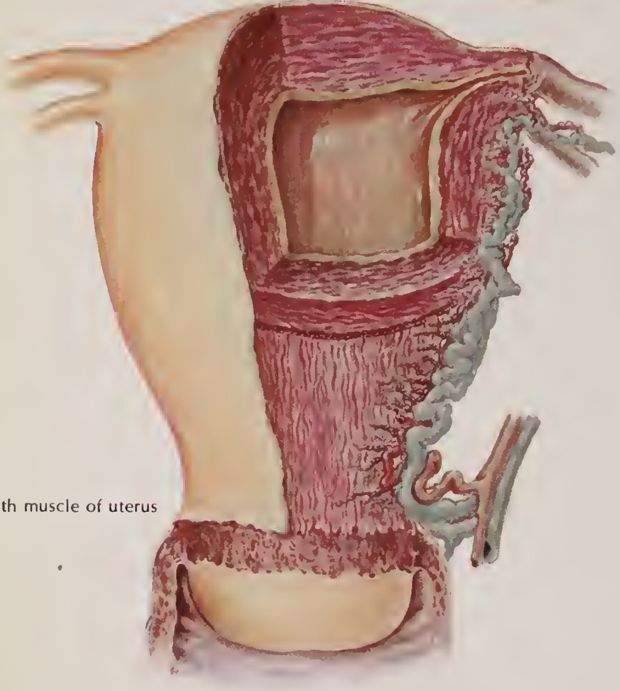


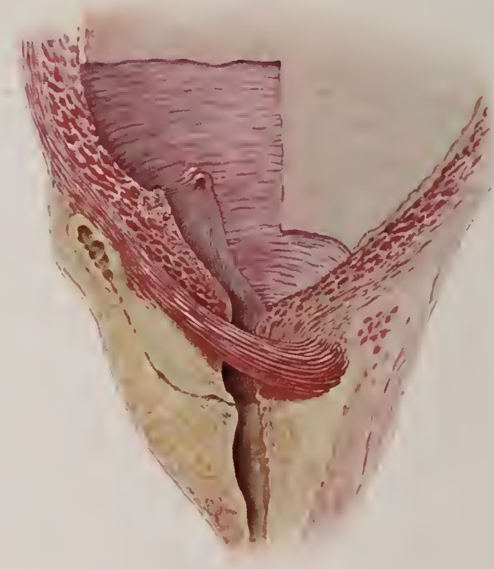
smooth muscle of pylorus



smooth muscle of colon



smooth muscle of uterus



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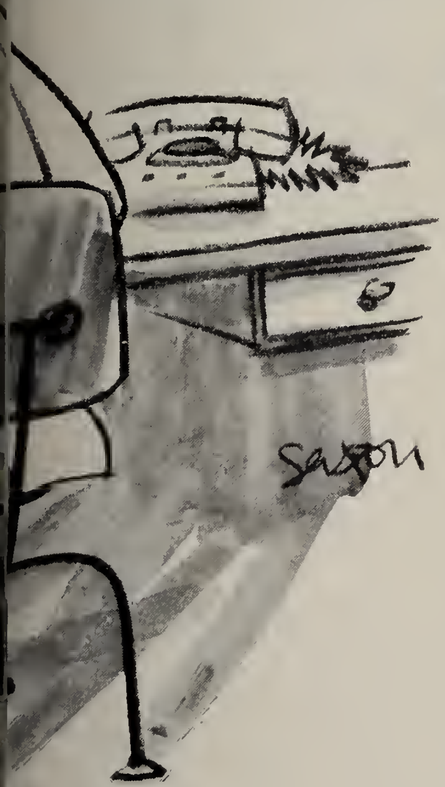

Adding to the Roster of Technicians

Philadelphia's School District cooperates with Dobbins School and other agencies to help relieve the shortage of laboratory personnel

ALBERT DICKMAN, PH.D.,

Philadelphia, Pennsylvania

A well-known, grave reality in the health laboratory field is the shortage of scientists and technical personnel. Probably for many years to come we will not have enough qualified pathologists, microbiologists, clinical chemists, technologists or laboratory assistants.

The past lack of joint efforts to ameliorate the problem has meant that (1) outstanding individuals have failed to be attracted to the field, and (2) some poorly qualified individuals have been encouraged to enter it. Some institutions, organizations, and individuals have capitalized on the situation by offering training of questionable quality and value.

The American Society of Clinical Pathologists, the American Society of Medical Technologists, and other professional groups have recently directed attention to the shortage of college-degree-holding technologists, and to the desirability of filling this gap by providing less-highly-trained personnel such as technician aides, technician trainees, or technical aides. These organizations believe that such individuals could ably assist laboratory specialists.

Under legislative acts, the commonwealth of Pennsylvania recognizes, for possible certification, "technician trainees" (in addition to laboratory directors, supervisors, technologists, and technicians). By definition, such trainees must be high school graduates with at least one year of training in medical technology (including instruction in chemistry and biology), in a laboratory or institution acceptable to the state Department of Health.

The department's *Rules and Regulations* also state that the term "technician trainee" shall mean an individual who has had basic training required for technician certification, without having had the required experience. Persons in this category may work under the direction of a qualified technician, but may not be responsible for technical procedures. Two years' full-time experience in a laboratory satisfactory to the department may make the individual eligible for classification as a technician.

Philadelphia Story

During 1963-64, the School District of Philadelphia, by means of the support and recommendations of a broadly represented advisory committee, set up a Medical Laboratory Technician Training Program at the Dobbins Technical School, to provide an opportunity for eligible high school graduates to gain experience enabling them to qualify, within the state, as technicians. This plan follows many years of success with an X-Ray Technician Training Program at Dobbins, fully accredited by the American Registry for Radiologic Technologists, and by ten hospitals affiliated in this program. Students spend eight months at Dobbins and sixteen in an affiliating hospital. The curriculum is supervised by an advisory board composed of radiologists, representatives of the Roentgen Ray Society of Philadelphia.

Because from the outset the school district and its advisory committee aimed to coordinate the program with that of the local section of the American Society of Clinical Pathologists, the committee included a strong representation of local pathologists.

In the past, the advisory committee has included individuals in hospital administration, and representatives of the School District of Philadelphia, of the Pennsylvania Division of Laboratories, and of the Philadelphia County Medical Society, the Pennsylvania Society of Clinical Pathologists, the Pennsylvania Association of Clinical Laboratories, the Philadelphia Section of the American Association of Clinical Chemists, the American Society of Medical Technologists, the Philadelphia Division of Laboratories, and a Philadelphia area pharmaceutical organization. Representation by other entities is being considered, and probably in the future it will be by officially-designated individuals from the various societies.

Factors Considered

Optimum success of such a project depends on a close liaison between the school district, the advisory committee, and the area's hospital laboratory directors. The undertaking must be carefully integrated, dovetailing as closely as possible the program at the technical school with those at cooperating and affiliating laboratories.

At Dobbins, carefully screened high school graduates are instructed in the basic sciences, and exposed to the techniques, manipulations, and instrumentation characteristic of a medical laboratory. Upon satisfactorily completing this ten-month period of instruction at Dobbins, students receive fourteen months' additional practical training and experience in affiliated laboratories.

The first class completed clinical training at the following hospitals: Germantown, Pennsylvania, Veterans Administration, and Albert Einstein Medical Center Southern Division, and at the Public Health Laboratory of the Philadelphia Department of Health. Class members now work at Pennsylvania, Frankford, Hahnemann, and Veterans Administration hospitals, at Albert Einstein (both divisions), and in private clinical laboratories.

An Invitation

Directors of area hospital laboratories are urged to contact the Dobbins Technical School, Twenty-second Street and Lehigh Avenue, Philadelphia 19125, for further information on affiliation with the program.

Close cooperation among individuals and agencies concerned with the technician shortage can help relieve that shortage, providing personnel who have aptitude, laboratory orientation, acceptable training in the basic sciences, and familiarity with medical laboratory problems and technical operations.

• Dr. Dickman is a member of the advisory committee for the program he describes.

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EDITORIALS

We Honor Our Allies in The 'World of the Media'

The "average doctor" probably won't give a fig or a tinker's dam for "excellent medical news coverage." This average doctor is, of course, a myth, but even if we use him as a statistical abstraction, we detect little real evidence of any interest on his part in awards announced each year for praiseworthy communicating of medical news to our fellow citizens.

This "couldn't care less" attitude ought to be changed. I contend that outstanding reporters and science writers bring genuine help to the practicing physician—in his care of the sick and injured as well as in his practice of preventative and restorative medicine.

Further, because poor reporting and untimely announcements re our profession have done so much harm, I maintain that we ought to commend good reporting and well-timed announcements, by any communications medium, of medical discoveries and activities.

For several years I have helped evaluate entries for the Walter F. Donaldson Awards, the State Society's means of recognizing excellence in the dissemination of medical and health information to Pennsylvania residents. If our mythical average doctor could make a similar survey of the wide spectrum of medical and medically-related information in our Pennsylvania news media, he would no longer remain indifferent.

He would, for example, see, in popular publications, and hear, in broadcasts and telecasts, a wealth of information which gives readers a vivid picture of modern medicine. These readers—these listeners to radio—these watchers of television—are our patients. The more they know about the disabilities for which they consult us, and the various implications of those disabilities, the easier our job becomes.

I mean, of course, the more *truth* they know. With real dangers inherent in the spreading of false or misleading medical information, we can be thankful for the skill and erudition of eminent professional communicators who present facts which are not easily placed in the proper perspective to evoke truth.

Since Pennsylvania alone is the "locus" of the Donaldson Awards, the entries are highly personalized, intended to apply to *your* patient, right where he lives. They deal with matters vital to him on which he may need information. Whether they have emanated from newspapers, magazines, radio stations, or television studios, these contributions to the health field are valuable to the patient and to the physician, and often have a telling impact on health projects in a particular locality.

The reporters and writers treat questions such as these: "Where should the new hospital construction in Centre County take place?", "What's going on in emergency rooms in the hospitals in Erie?", or "Shouldn't you be concerned with the growing illegitimacy rate in your local high schools?" Even the most skeptical physician cannot remain indifferent to informed publicizing of problems as real as these.

Needing an informed lay public, plus all the help available in making our health profession as effective as it ought to be, we physicians can applaud "media" efforts that so ably complement the work *we* do. We can acclaim clear explanations of the cost and distribution of medical care, and especially of the dangers of new and untried methods. We can cheer the recruitment of allies in combatting quackery.

For all these reasons, I feel strongly that the practitioner should take note of "recognition" projects such as the Donaldson Awards Program. They are well worth his support, and deserve to spread and flourish, doing honor to those who do our profession a great service.

Honoring New Jersey And Dr. Davidson

What do *we* care if this is the year of the two hundredth birthday of the Medical Society of New Jersey, the one hundred eighty-fifth anniversary of the Massachusetts Medical Society, and the one hundred seventy-fifth year of the Vermont Medical Society? We care because no physician is an island; he cannot exist without having a network of communication with his neighbor-physician. This network must stretch out to the bounds of the county, the state and nation.

If this network were broken, or its lines of communication disrupted, the physician would be accordingly diminished in stature and effectiveness, and his sources of satisfaction would be proportionately lessened. Many physicians consider the lines of communication unimportant—perhaps even harmful. But this attitude is the product of thoughtlessness or ignorance, for if there were no county bulletins or state journals, we would be deprived of much that we take for granted. Soon the demand for the creation of such media would again bring them into existence.

Those two paragraphs are the prelude to some hero-worship addressed to the dean of state medical journal editors—Henry A. Davidson, who has for twenty-five years masterminded the highly respected *Journal of the Medical Society of New Jersey.* We Pennsylvanians can bask in some of the light of this service record, not only because of our claim as neighbors to New Jersey but because our commonwealth was the site of Dr. Davidson's medical education. Although he was born in Newark, New Jersey, he took his M.D. from Jefferson Medical College, and followed this by extensive training in neurology and psychiatry at the University of Pennsylvania.

The activities of Dr. Davidson are too many to detail. In addition to much work in his chosen field of practice and in teaching this specialty, he took time for several years of

● Opinions expressed in contributions to PENNSYLVANIA MEDICINE are those of the writers, and do not necessarily reflect the views of the Pennsylvania Medical Society.

World War II service, much of it in the Pacific theatre. The amount of editing and writing to the doctor's credit is huge. Let us indicate it by pointing out that he has written three books (one of them on the history of chess!).

We medical editors have considerable admiration for Dr. Davidson, for his full life and high achievements. When state medical journal editors get together, they share comments indicating this admiration. I am grateful for this occasion to point out to a wider audience our indebtedness to this able and prolific writer.

The Future Physician

High school young people, undecided on a life work—but possessing qualities usually recognized as forming the best bases for a medical career—need guidance and encouragement so that their talents and interest will not be lost to the medical profession. Just as importantly, their contemporaries already planning a future in medicine should be counseled thoroughly—not only that they may be fully apprized of the demands and opportunities of the profession, but also in order that words of caution may be given to those among them who may *not* be suited to the rigorous, exacting life of a medical doctor.

County medical societies working in this vital area are receiving wholehearted support from their woman's auxiliaries in presenting "Meet Medicine" assemblies, in providing literature and other materials to students, and in organizing "Future Physician" clubs.

These medical student recruitment organizations, formed with the sanction of each high school's principal and aided by a faculty sponsor, usually meet once a month for informative talks, discussions, and/or field trips to medical facilities, to learn of medical school requirements and of M.D.s' experiences in various phases of medical practice. Some club members, of course, rather than deciding to become physicians, may eventually enter allied health fields in which they will work *with* physicians.

Whether the county societies and the auxiliaries are instrumental in guiding capable boys and girls into the medical profession or into a kindred field, they are performing a tangible service to the future of medicine and to the constantly-increasing numbers of persons needing skilled, concerned care.

Mrs. Lucian J. Fronduti,
President, The Woman's Auxiliary to the Pennsylvania Medical Society.

Golden Nuggets

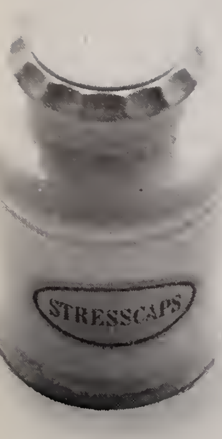
"The 1965 convention of the Pennsylvania Medical Society was in my mind 'the best ever.' The innovations of workshops, clinical rounds and luncheon with the experts were really—just what the doctors ordered.

"Everyone who attended felt that he had gained far more than heretofore. These innovations give the convention goer a greater feeling of participation than ever before.

"I am looking forward with great anticipation to the 1966 session." *

Arthur E. Pollock, M.D., Altoona
A former president of Pennsylvania Academy of Physical Medicine and Rehabilitation.

*** Similar courses are being prepared for the 1966 TEACHING INSTITUTE which will be held Oct. 9-11 in Pittsburgh.**



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Mail Call

Dr. Farrar Approves

I wish to compliment you on the March issue. I like both the new format and the contents. You have developed a new spirit in these pages. I hope this new look will be contagious in many ways.

George E. Farrar, Jr., M.D.,
Gladwyne.

So Does Mr. Mendte

Several years ago, when I asked a few doctors their opinion of the PENNSYLVANIA MEDICAL JOURNAL, each one replied, "It's a good magazine, but nobody reads it."

I just looked through the March issue of PENNSYLVANIA MEDICINE which you sent me. You certainly have done a splendid job from cover to cover. If all subsequent issues are as good as this one, I doubt that I'll ever again hear that "nobody ever reads it."

Some magazines feel it their duty to be dull, but generally, even when an editor attempts to make the publication lively and interesting, a person not in the particular field served might still find the publication hard to read. Not being a doctor, I was in that position when glancing through PENNSYLVANIA MEDICINE. Well, it passed the test of arresting my interest. The layout, the type faces, and the illustrations were well selected. Particularly interesting were the article on Nathaniel Chapman, M.D., and the editorials on pages 66, 67, and 80.

You have my enthusiastic approval for the new look of PENNSYLVANIA MEDICINE.

J. Robert Mendte,
Philadelphia.

A Lady, Too

Having been so deeply involved in our own overall [revision], I have delayed sending you the congratulations you so well deserve for the "new look" in PENNSYLVANIA MEDICINE. I know how much work this revamping meant for you.

Theresa E. Goeke,
The Medical Society
of New Jersey.

Blast from the Coal Regions

"The new Journal appears to be nothing new except the cover. 'To make changes, accept new ideas, to revamp an old format, to make it a more effective agent for communication'—we heartily agree with all this. But unfortunately [sic], going through the New Journal rather carefully, we saw nothing startling new, except the Cover, and the contents inside which are less in substance and nothing new to enlighten us. We wonder what the cost of the renovation was and why the change from something that was better than what it is now."

Bulletin of the Luzerne County Medical Society.

More Acclaim

As a newsman, I have been a frequent reader of your journal during the past decade. Let me add my congratulations on your new format.

The new feature articles and the presentation of the editorial viewpoints and news items make the magazine more readable.

If your goal is, in part, to communicate medical news and society ideas to nonphysicians as well as to the medical profession, this new approach should help.

Bern Sharfman,
Harrisburg.

Regrets Licensure Change

Regarding Alva R. Cockley's letter on page 60 of your December issue, I feel that the policy change by the State Board of Medical Education and Licensure on the licensing of foreign physicians is a step backward. The E.C.F.M.G. certificate reads:

"The E.C.F.M.G., sponsored by the AMA, Federation of State Medical Boards of the United States [and others] certifies that (the foreign doctor) (1) has presented documentary evidence that he has completed satisfactorily 18 or more years of formal education, at least four of them in a medical school listed in the World Health Organization's World Directory of Medical Schools; (2) has demonstrated a satisfactory command of the English language by passing the E.C.F.M.G. English test; (3) has demonstrated a satisfactory knowledge of medicine by passing the American Medical Qualification Examination."

I was asked to take additional courses (English, physics, and chemistry), in spite of the fact that I had the E.C.F.M.G. certificate, a Connecticut license including the basic science examination, and the American Board of Pediatrics certification! I hope the Pennsylvania licensing laws will be modified as soon as possible.

Pennsylvania is not alone in this chaotic situation. Unless quick, unified action is taken by the states (regarding uniformity in licensing procedures), the U.S. Congress will next be investigating this matter as it investigated integration, auto safety, etc. A greater uniformity in licensing procedures will help solve the acute shortage of physicians.

Peter Bonadero, M.D.,
Fredericktown.

Allergist's Reaction

I read with great interest the article on *The Asthmatic Child,* by Howard G. Rapaport, M.D., of New York City, in the March issue of PENNSYLVANIA MEDICINE. I was greatly surprised at his comments concerning the use of pyridine-extracted alum-precipitate (Allpyral) antigens. He states that:

"Early reports on this technique reflected more enthusiasm than now appears to have been warranted. A number of investigators have discontinued using these substances, presumably because results were inadequate, or because severe untoward reactions too often occurred. The problems associated with alum-precipitated pyridines apparently relate primarily to their uncontrolled rate of breakdown in the body. If this leads to extremely slow absorption, sufficient protection obviously will not be provided. On the other hand, uncontrolled release of large quantities of active material can be dangerous, particularly in the very sensitive patient."

These statements are so absolutely contrary to the experience of myself, my associates, and many others who have used this material, that I wonder upon what evidence these statements are based.

When these extracts were first introduced into clinical use, a few systemic reactions were reported after injection of a grass pollen extract which had been improperly prepared. This was subsequently corrected so that these reactions no longer occurred. It is possible that Dr. Rapaport had this in mind in his statement. But if so, he apparently is unaware of the many subsequent publications, including our own,[1, 2] which have substantiated the advantages these extracts have over the aqueous ones in common use.

In our experience, one of the principal advantages of these extracts is their greater safety, with a much lower incidence of systemic reactions after their use, compared with standard aqueous extracts; also the ability to administer much larger doses, without reaction, than was possible with the latter material; furthermore, fewer doses at longer intervals (up to two months) were required; and finally, the patients derived equal clinical benefit.

We have found these advantages to exist not only for the Allpyral extracts of ragweed pollen, but also of similar extracts of tree, grass, and English plantain pollens, alternaria, house dust, and several animal danders.[3] After more than five years' experience with these extracts, I have been sufficiently impressed with their usefulness and safety as to be employing them almost exclusively in my practice, in desensitization therapy.

Louis Tuft, M.D.,
Philadelphia.

REFERENCES

1. Tuft, L., and Torsney, P. J.: Treatment of ragweed hay fever with Allpyral extracts, *J. Allergy,* **36:** 265, 1965.

2. Tuft, L., et al: The use of alum-precipitated pyridine pollen extract in the treatment of ragweed pollinosis, *Am. J. Med. Sc.,* **250:** 668, 1965.

3. Tuft, L.: Treatment of allergic conditions with alum-precipitated (Allpyral) extracts of allergens other than ragweed, *Acta Allergolica* (in press).

Anti-Asterisk

I note that the listings of postgraduate courses in Pennsylvania Medicine indicate Jefferson Medical College-Pennsylvania State University sponsorship of continuing education programs by means of an asterisk.

I am not personally opposed to the use of asterisks in order to save space or to indicate that a footnote follows. I do plead, however, for consistency. I believe if other sponsoring organizations are indicated in the same paragraph, they, too, should be so indicated.

Newton O. Cattell,
University Park.

Since the two institutions mentioned sponsor a great many courses, and since our space is limited, we have used asterisks and an accompanying footnote in order to save many lines of type. When other institutions present as great a volume of courses, we use footnotes for these, also (such as for Einstein Medical Center).

The Editors.

Our Mistake

In my article, *A New Sequential Oral Contraceptive Evaluated,* published on pages 37-39 in your January, 1966, issue, this error occurs in the third and fourth lines of the first paragraph:

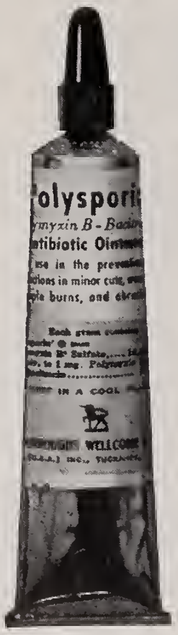
". . . ORF-1557-G contains mestranol 80 mg."

The pill contains 80 *micrograms,* or mcg.

Leopold S. Loewenberg, M.D.,
Philadelphia.

---

in treating topical infections, no need to sensitize the patient



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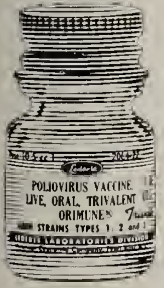

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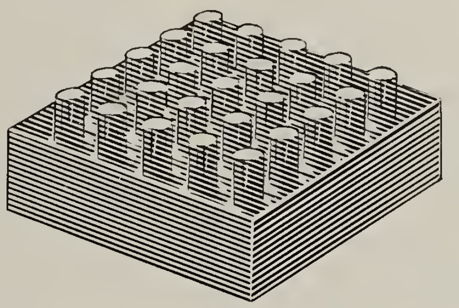
Only 2 doses required for complete, initial immunization for patients more than a year old.

Effectiveness—may be expected to confer active immunity against all three types of poliovirus infection in at least ninety percent of susceptibles only if given at full dosage, as directed. No characteristic side effects have been reported. There are, however, certain contraindications. These are, broadly: acute illness, conditions which may adversely affect immune response, and advanced debilitated states. In these, vaccination should be postponed until after recovery.
In infants vaccination should not be commenced before the sixth week of life. Do not give to patients with viral disease, or if there is persistent diarrhea or vomiting. ORIMUNE and live virus measles vaccine should be given separately.
Dosage—initial immunization: two doses each given orally at least 8 weeks apart. (Give a third dose to infants at 10-12 months). Booster immunization: one dose, given orally. See package literature for full directions.



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Side effects are possible but rare: vesiculation, ulceration or necrosis at test site. Contraindications, none; but use with caution in active tuberculosis. Available in boxes of 5 (new individually-capped unit); cartons of 25.

*Rosenthal, S. R., Nikurs, L., Yordy, E., and Williams, W.: Scientific Exhibit Presented at the Annual Meeting of the National Tuberculosis Association, Chicago, Illinois, May 30-June 2, 1965.

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MEDICAL SOCIETY NEWS

Diagnosis, Evaluation

Three Guests of PMS Committee on Objectives Attack 'Problem Areas' Affecting Service to The Medical Society and Profession

On invitation of Wilbur E. Flannery, M.D., New Castle, past president of the State Society and now chairman of its Committee on Objectives, these physicians examined, at a recent Harrisburg meeting, relationships between practicing physicians and medical educators and their students: George T. Harrell, Jr., M.D., dean of The Milton S. Hershey Medical Center, William B. Wood, M.D., Harrisburg Hospital intern, and James R. McShane, M.D., medical director of the Reading Hospital.

'Town and Gown' Problem

Tracing medical education's history, Dr. Harrell indicated that the "full-time academician" situation underlies the "town and gown" problem existing between members of the medical community who are strictly educators and those who devote themselves to patient care. Many full-time teachers, he said, deeming themselves rebuffed by organized medicine—one of whose original aims was improvement of medical education—feel excluded from medical society concerns and activities.

"The academician's feathers get a little bit ruffled" by this apparent state of affairs, Dr. Harrell pointed out.

Academic Attitudes

Further, the "really tremendous" load of charity and welfare patients whom academicians in the larger metropolitan centers care for has led these physicians to believe that organized medicine—dominated by physicians in private practice—has not taken a "completely realistic" view of social and economic problems. One example of "organized medicine's unrealistic approach," according to many academicians, was legislative activities at the national level relative to centers for heart disease, cancer, and stroke, Dr. Harrell explained.

Another source of "potential conflict," the dean indicated, is physicians' continuing education, which, instead of being the responsibility of medical schools, is usually under the aegis of the practicing profession.

Science vs. Economics

Academicians believe, said Dr. Harrell, that they have adhered closely to the scientific side of their calling, but that organized medicine is more interested in economics and politics than in science. This impression is reinforced, says Dr. Harrell, when the academician drives many miles to present an address on a scientific subject to a medical society with hundreds of members, only to face an audience of about twenty.

Another source of division between organized medicine and medical educators is that more and more of the latter are doctors of philosophy—who are excluded from medical societies. Dr. Harrell suggested that the State Society consider setting up an "associate member" status for Ph.D.'s teaching in medical schools. Such membership might even be extended to Ph.D.'s active in research (such as is done in pharmaceutical establishments), dealing with human disease problems.

Schools Must Use Ph.D.'s

Faculties are heavily weighed with these Ph.D.'s, in basic medical sciences such as anatomy, biochemistry, microbiology, and physiology, the dean pointed out. He said that this is not because the medical schools do not want M.D.'s to teach such subjects, but because they cannot find enough M.D.'s to do the necessary teaching.

Organized medicine is also neglecting medical students, interns, and residents, the educator said. "House officers, also, have felt very much rebuffed by organized medicine's recommendations that fees collected on insurance programs in which the house officer has done all the work should not then be plowed back into activities which improve his lot—expansion of education programs, higher salaries for house officers, travel to medical meetings, and the like."

Cites 'Negative Attitudes'

Dr. Wood, a 1965 graduate of Jefferson Medical College, told the comittee that interns and first-year residents with whom he has discussed the matter have "largely negative viewpoints" toward organized medicine.

During the first two medical school years, he said, students "have no feeling" for the medical profession, a state of affairs Dr. Wood attributed to (1) their concentration of interest in the basic sciences, (2) the fact that Ph.D.'s (rather than M.D.'s) do most of the teaching during those years, and (3) the fact that students must work hard to meet scholastic standards.

In the latter two years of medical school, however, "they begin to think of themselves somewhat as physicians," he declared. But they tend to think of organized medicine in terms of AMA activities—sometimes taking a dim view thereof, as in the case of medicare, when students felt that the AMA "fumbled the ball."

No Time for SAMA

Although some students participate in the Student American Medical Association, most of them "do not have time," said Dr. Wood, and later, as interns, the majority find no place to "fit into" organized medicine.

Many students appear to regard medical societies as reactionary, he declared, although some feel that they are "not reactionary *enough.*" He characterized some young physicians as feeling that medicine "is less of a profession than it was formerly," expressing the opinion that medical school graduation thrusts them from an "ivory tower" atmosphere into an awareness of economic considerations for which they were not prepared.

Alumni Surprises

Dr. Wood explained that students also believe that a "textbook brand" of medicine is practiced in the educational institutions, upon leaving which, the graduate is disagreeably surprised to find that standards different from those of the medical school sometimes exist in other environments. Often this is due to the fact that the busy practitioner does not have the time nor the inclination for basic medical investigations, or due to economic considerations.

"Students feel that organized medicine should police its ranks better," Dr. Wood stated. If this is not done, "the government will inevitably end up policing our ranks for us." Organized medicine should be, for the profession, " a strong arm to police its ranks and control its members more effectively."

According to Dr. Wood, students and interns would like to be more active in medical societies, but find that they have little influence and that organized medicine is controlled by "another generation."

Lack Knowledge of Aims

Students and young physicians also lack knowledge of organized medicine's objectives and activities, he went on, suggesting that the present methods of communication between medical groups and medical students are not markedly effective. Perhaps students' participation could be enlisted if efforts were made to help them learn nonacademic aspects of medical practice—such as the best techniques of dealing with a patient's family.

Dr. McShane opined that the AMA has done a good job in many respects, and that the county medical society is a good meeting place for colleagues. But he does not understand *"what* I get out of the Pennsylvania Medical Society." Reminding the committee that he is not in private practice, he said "I know a lot of it is my lack of knowledge," but indicated that he resents being "compelled" to belong to the Pennsylvania Medical Society, and also resents the PENNSYLVANIA MEDICAL JOURNAL (since renamed PENNSYLVANIA MEDICINE).

Decries Lobbying

"I have been informed," Dr. McShane continued, "that one of the prime functions of the Society is to lobby for the doctor and for medicine," but "being somewhat of an idealist, I think this is a poor commentary on government." He went on to say that the legislators should take the initiative in getting information needed in order to vote intelligently on legislation.

Medical societies should "have a strong, clear voice," said Dr. McShane, on such matters as public health, accident prevention, mental health, and problems of the aging. But state and local medical societies "should give up their educational function," leaving this to hospitals and to experience. The society should be a tool by which physicians could teach the public "what they should do," and could teach physicians socioeconomic aspects of practice.

Blames Communication Failure

Dr. McShane blamed failure of communications between the society and the individual physicians for his finding that "80 percent" of his confreres do not know what the State Society can do for them. He declared that he does not know what the various PMS councils are nor what they do.

Some committee members expressed opinions to the effect that for best results, members of local societies should exert more personal effort in improving communications. A discussion followed, with members expressing appreciation for the points of view presented to the committee.

• In addition to the chairman, the committee consists of Drs. William F. Brennan, Allen W. Cowley, Herman A. Fischer, Louis W. Jones, Frank R. Kinsey, Malcolm W. Miller, William Y. Rial, Charles K. Rose, Sydney E. Sinclair, Joseph N. Tushim, Daniel H. Bee, George S. Klump, Thomas W. McCreary, and W. Benson Harer.

AMA Sets New Statement on Hospital Privileges of Ancillary Personnel

The American Medical Association has substituted the following principle for one originally presented in Report A (page 1) of the Commission to Coordinate the Relationships of Medicine with Allied Health Professions and Services:

"In the best interest of the public, it is the obligation of the medical staff of a hospital to recommend to its governing authority the extent of responsibility that may be assumed by members of allied health professions and services within the limits of policy enunciated by the AMA House of Delegates. The inhospital responsibility of personnel of the allied health professions and services should be judged by the credential or other appropriate committee of its medical staff."

The statement was adopted by the AMA's Reference Committee on Insurance and Medical Service, and is here publicized at the request of the PMS Board of Trustees and Councilors.

New HUP Head Sought

The Hospital Utilization Project of the Tenth Councilor District is looking for a new director. On July 1, 1966, the director, Sidney Shindell, M.D., will assume the chairmanship of a university department of preventive medicine. This Project will continue for a minimum of two years and may, possibly, go on indefinitely.

The director must be one who understands the problems and point of view of practicing physicians, has some knowledge and experience in the interpretation of statistics, and can manage a staff of eight or nine employees.

If interested, please send your curriculum vitae to the Search Committee, at the Hospital Utilization Project, Flannery Building, Pittsburgh, Pa. 15213, to the attention of William A. Barrett, M.D.

AMERICAN MEDICAL ASSOCIATION Annual Convention—Chicago, June 26–30.

WELCOME, NEW MEMBERS!

These M.D.'s have joined the State Society in recent months:

ALLEGHENY COUNTY:

Mehmet A. Donmezer, 3526 Valley Drive, Pittsburgh 15234.

Oscar Farmati, Department of Anesthesia, Presbyterian-University Hospital, Pittsburgh 15213.

C. Lee Walter, 935 Heberton Avenue, Pittsburgh 15206.

BERKS COUNTY:

Russell E. Straub, 3521 East Kent Avenue, Laureldale 19605.

BLAIR COUNTY:

Johannes L. DeKoning, 5144 Chestnut Street West, Altoona 16601.

BUCKS COUNTY:

David P. Morrison, Jr., 106 East State Street, Doylestown 18801.

William A. Sugen, Box 278, Buckingham 18912.

CAMBRIA COUNTY:

Errol D. Henriques, 201 North Julian Street, Ebensburg 15931.

Owen K. Morgan, 211 Main Street, Johnstown 15901.

CHESTER COUNTY:

Robert L. Bell, Box 410, Veterans Administration Hospital, Coatesville 19320.

Alan Goldfine, 1217 Thistlewood Lane, West Chester 19380.

Gilbert A. Liss, 215 Main Street, Phoenixville 19460.

Donald J. Rosato, 176 East Conestoga Road, Devon 19333.

COLUMBIA COUNTY:

Stephen J. Dziwura, 101 Vine Street, Berwick 18603.

CUMBERLAND COUNTY:

Robert J. McConaghie, 628 Belvedere Street, Carlisle 17013.

DAUPHIN COUNTY:

Alvaro Alandete, 2971 Rumson Drive, Harrisburg 17104.

Milton A. Friedlander, Holy Spirit Hospital, Camp Hill 17011.

Charles C. Goodman, 114 Valley View Road, New Cumberland 17070.

Franz N. Metzner, Bethlehem Steel Corporation, Steelton 17092.

Loucas C. Tzanis, 107 Locust Street, Harrisburg 17101.

LUZERNE COUNTY:

William P. Smedley, 260 Pierce Street, Kingston 18704.

LYCOMING COUNTY:

Harry W. Stephens, Jr., Williamsport Hospital, Williamsport 17704.

McKEAN COUNTY:

William S. Anderson, 133 Biddle Street, Kane 16735

MERCER COUNTY:

Harry W. Bashline, Pine and Center Streets, Grove City 16127

MONTOUR COUNTY:

Harold W. Brooks, The Geisinger Medical Center, Danville 17821.

James L. Curtis, The Geisinger Medical Center, Danville 17821.

Frederick L. Jones, Jr., The Geisinger Medical Center, Danville 17821.

John I. Mandler, The Geisinger Medical Center, Danville 17821.

NORTHAMPTON COUNTY:

Henry G. Carter, 124 Pennsylvania Avenue, Easton 18042

Eugene I. DiSalvo, 2003 Fairview Avenue, Easton 18042

Ih Chin Kim, 2025 Fairview Avenue, Easton 18042

Michael L. Sheppeck, 30 Saucon Lane, R. D. 3, Bethlehem 18015

Richard W. Sundling, 805 Laurel Drive, Bethlehem 18017

PHILADELPHIA COUNTY:

Kelly M. Berkley, 230 North Broad Street, Philadelphia 19102.

M. Prince Brigham, 128 Fawn Lane, Haverford 19041.

Anthony J. Damore, 1034 Hartel Street, Philadelphia 19111.

John F. DiTunno, 230 North Broad Street, Philadelphia 19102.

Perry I. Dornstein, 6060 Crescentville Road, Philadelphia 19120.

Arthur T. Faulk, 4961 Walton Avenue, Philadelphia 19143.

John M. Fenlin, Jr., Jefferson Hospital, Philadelphia 19107.

Edward B. Hosten, Front Street and Lehigh Avenue, Philadelphia 19125.

Dale G. Johnson, Children's Hospital of Philadelphia, Philadelphia 19146.

Leroy L. Johnson, 3400 Spruce Street, Philadelphia 19104.

David M. Kelsey, Park Towne Place, Apartment 11075, Philadelphia 19130.

Mojtaba Kianouri, 700 North Sixty-third Street, Philadelphia 19151.

Narendra Krishna, 2022 Spruce Street, Philadelphia 19103.

Edward C. Leonard, Jr., Box 107, Jefferson Medical College, Philadelphia 19107.

Lucille F. Rosen, 5001 Frankford Avenue, Philadelphia 19135.

Henry Scott, 1727 West Erie Avenue, Philadelphia 19140.

Amir Shahandeh, University of Alabama Medical Center, 1919 Seventh Avenue South, Birmingham 35233.

Caroll L. Shaw, 5014 Spruce Street, Philadelphia 19139.

Herbert J. Somers, 1307 Tabor Road, Philadelphia 19141.

John F. C. Stapleton, 3300 Henry Avenue, Philadelphia 19129.

Peter F. Stonier, Merck Institute for Therapeutic Research, West Point 19486.

Benito Tancor, 5008 McKean Avenue, Philadelphia 19144.

Robert E. Zeller, Philadelphia General Hospital, Philadelphia 19104.

SOMERSET COUNTY:

Edward J. Stachowiak, 139 West Patriot Street, Somerset 15501.

Doris Ware, 225 South Center Avenue, Somerset 15501.

SUSQUEHANNA COUNTY:

James M. Miller, 1 Grow Avenue, Montrose 18801.

UNION COUNTY:

Lawrence R. Kroner, Laurelton State School, Laurelton 17865.

David N. Mikhail, Evangelical Community Hospital, Lewisburg 17837.

WARREN COUNTY:

David P. Donarski, Warren State Hospital, Warren 16365.

WASHINGTON COUNTY:

George C. Schmieler, 615 First Street, Canonsburg 15317.

WAYNE-PIKE COUNTY:

Donald A. Swetter, 1306 North Main Street, Honesdale 18431.

Gary Brooten Among Donaldson Winners

Gary Brooten, *Philadelphia Inquirer* feature writer, cited in the 1965 honorable mention category of the Walter F. Donaldson Awards Program, was this year's top winner. Mr. Brooten has become widely known for his outstanding articles on medical and health subjects.

Henry A. Pierce of the *Pittsburgh Post-Gazette,* and Andrew D. Cook of the *Philadelphia Bulletin,* received 1966 honorable mentions.

Media facilities accorded Donaldson honors included: first place—for television programs on health subjects—WTAE-TV, Pittsburgh; for radio presentations—WIP, Philadelphia. Honorable mention in the radio area went to WFBG, Altoona.

The award honors the memory of the late Dr. Donaldson of Pittsburgh, secretary-treasurer of the PMS for thirty years and editor of its journal for sixteen.

AMA Citation

Mr. Brooten has also been honored by the AMA for his series of articles on air pollution, and for general excellence in medical reporting.

Reel Educational Aids

From 3,007 bookings of educational films in 1955, to 11,635 in 1966, is the record of the AMA's Film Library. Films have been loaned to physicians, medical students, nurses, and professional groups, the largest single users being civilian hospitals and schools of nursing.

For information on films, write AMA Film Library, 535 North Dearborn Street, Chicago 60610.

At AMA Session

State Officers Will Meet Sunday A.M.

Presidents and other officers of state medical societies will meet at 9:30 A.M. on Sunday, June 26, in the Palmer House, Chicago, prior to the convening of the AMA House of Delegates, set for that afternoon.

Featured speakers for the morning session will be Angus Murray, president of the Australian Medical Association, and Richard M. Nixon, former Vice-President of the United States.

Walter C. Bornemier, M.D., Chicago, president of the state officers' conference, has urged all state officers attending the AMA Convention to be present at the 9:30 A.M. meeting.

Youth Will Be Served

Under auspices of the Woman's Auxiliary to the American Medical Association, physicians' children from age six through the teens can enjoy a varied program of tours and activities during AMA and Auxiliary conventions in Chicago, June 26-30.

Handled by Gulliver's Trails, Inc., the events include, for pre-teens:

Visits to: the Museum of Science and Industry, the city's tallest observation tower, a newspaper plant, the Art Institute's Junior Museum, the Borg-Warner Science Hall, the Brookfield Zoo, a television show, the Lincoln section of the Historical Museum, and, with the teens, the Great Lakes Naval Training Station.

For teens, a two-hour Lake Michigan cruise, lunch in Grant Park, and visits to the Shedd Aquarium, the Field Museum of Natural History, Marina City, the Breakfast Club radio show, the Police Academy, Chinatown, the Art Institute, Borg-Warner, and the Board of Trade.

The "package" charge for any five daytime trips is $45 per child. For reservation forms and details of charges for individual events, write the Woman's Auxiliary, American Medical Association, 535 North Dearborn Street, Chicago 60610.

Golden Nuggets*

"The workshop idea and particularly the discussion at each individual luncheon group was most stimulating."

W. D. Shutter, M.D., Latrobe
General Practitioner with staff privileges at Latrobe and McGinnis Hospitals.

* One physician's characterization of TEACHING SESSION '65 which has encouraged the Committee on Convention Program to plan similar sessions for the 1966 TEACHING INSTITUTE, Oct. 9-11, Pittsburgh.

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Another Future M.D. Club

Alfred T. Johnson, M.D., West Lawn, chairman of the Future Physicians Clubs for Berks County Medical Society, presented a charter to a newly-formed group in Reading's Wilson High School.

Sixteen aspiring future doctors of medicine, headed by Edward R. Hamberger as president, have been organized under sponsorship of the county society, its woman's auxiliary, and Wilson faculty members.

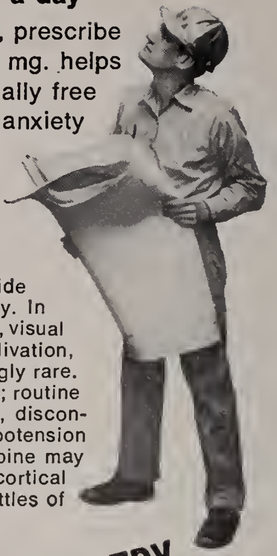
The club is one of a number recently chartered in various parts of the state.

- Discovering and developing a single new medicine may take as long as five to eight years and cost between $2 million and $3 million.

Blueprint for dealing with tension due to stress—Prolixin—once-a-day

For the patient who must be on the job mentally as well as physically, prescribe Prolixin. The prolonged tranquilizing action of as little as one or two mg. helps him cope with tension all day long. Markedly low in toxicity and virtually free from usual sedative effects, Prolixin is effective in controlling both anxiety associated with somatic disorders and anxiety due to environmental or emotional stress. Patient acceptance is good—because Prolixin is low in cost, low in dosage and low in sedative activity. Prescribe Prolixin.

Side Effects, Precautions, Contraindications: As used for anxiety and tension, side effects are unlikely. Reversible extrapyramidal reactions may develop occasionally. In higher doses for psychotic disorders, patients may experience excessive drowsiness, visual blurring, dizziness, insomnia (rare), allergic skin reactions, nausea, anorexia, salivation, edema, perspiration, dry mouth, polyuria, hypotension. Jaundice has been exceedingly rare. Photosensitivity has not been reported. Blood dyscrasias occur with phenothiazines; routine blood counts are recommended. If symptoms of upper respiratory infection occur, discontinue the drug and institute appropriate treatment. Do not use epinephrine for hypotension which may appear in patients on large doses undergoing surgery. Effects of atropine may be potentiated. Do not use with high doses of hypnotics or in patients with subcortical brain damage. Use cautiously in convulsive disorders. **Available:** 1 mg. tablets. Bottles of 50 and 500. For full information, see Product Brief.



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Side Effects: The only side effect reported with any frequency is sleepiness, usually on higher than recommended doses. An occasional patient may not tolerate carisoprodol because of an individual reaction, such as a sensation of weakness. Other rarely observed reactions have included dizziness, ataxia, tremor, agitation, irritability, headache, increase in eosinophil count, flushing of face, and gastrointestinal symptoms.

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Dosage: Usual adult dose is one 350 mg. tablet three times daily and at bedtime.

Supplied: Two Strengths: 350 mg. white tablets and 250 mg. orange, two-piece capsules.

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Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products.
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American Medical Association

BASIC FACTS

(Fourth in a series presenting background information about the history, purpose, and accomplishments of the AMA. Source: AMA News Department.)

Publications

Publications are a highly important facet of AMA's program. Since 1883, the *Journal of the American Medical Association* has been the most widely circulated medical journal in the world. To meet the needs of the medical specialties, AMA publishes ten monthly speciality journals:

Archives of General Psychiatry, Archives of Dermatology, Archives of Otolaryngology, Archives of Environmental Health, Archives of Pathology, Archives of Ophthalmology, Archives of Internal Medicine, Archives of Surgery, Archives of Neurology, and *American Journal of Diseases of Children.*

Nonscientific publications include *Today's Health* and *The AMA News.*

Biennially, the AMA publishes the *American Medical Directory*, undisputed reference of the medical profession, with biographical and educational information on all licensed physicians in the U.S. This volume was first published in 1906.

Current Medical Terminology, a pocket-size guide to preferred medical terms of all important diseases, represents the first step in developing a system of correct medical terminology, so that physicians from all parts of the world can understand one another.

Annually, AMA publishes *Index Medicus,* listing medical books and periodical literature published throughout the world, giving permanence to the medical literature of today, and carrying forward this generation's knowledge to scientific workers of the future.

New and Nonofficial Drugs, published annually, gives available information on drugs, including their therapeutic, prophylactic, and diagnostic status, as evaluated by AMA's Council on Drugs.

The AMA's many publications—including pamphlets, reprints, and reports—have earned for the organization the distinction of being one of the world's leading scientific publishers.

Headquarters Staff

The staff to carry out the programs inaugurated by the House of Delegates is headquartered at 535 North Dearborn Street, Chicago 60610. It is under the direction of the executive vice-president, a full-time, salaried physician-administrator. There are about 900 persons on the headquarters staff, 23 of whom are in Washington, D.C.

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- The first degree of Doctor of Medicine conferred in America was presented in 1768 by the School of Medicine, College of Philadelphia, later the University of Pennsylvania.

- Cameron County has the lowest death rate for all types of cancer, followed by Centre, Bucks, Juniata, Union, Snyder, Bedford, Potter, Clarion, and Franklin Counties.

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WILLIAM A. SODEMAN, M.D., *Dean and Vice President for Medical Affairs*

Must Medical Journal Writing be Dull?

Have you ever picked up a journal, opened it, read halfway through the first page, then—losing patience—riffled through the summaries of everything else in the book? Have you ever thought why you did this?

In recent years much has been said and written about medical writing. Discussion of style has been scant. Let us consider this aspect of the situation for a brief moment.

I do not say that every man writing an article should be able to equal the literary quality of a Thoreau, a Poe, or an Osler.

I do think that the average paper should be interesting and readable. It should not have the aura of having been spewed forth by some computerized Orwellian character.

I do not object to brevity and clarity. I do object to standardization which makes all articles appear to have been cast from the same mold.

Let us consider that the successful man of science must have three qualities: curiosity, enthusiasm, and insight. I believe that possession of these qualities is at least as important as native intelligence. These three qualities have a common denominator: they are all related to emotion.

There is a fetish today for being objective, detached, and remote. I say—put *emotion* back into our writing! Reinsert the satire, the wit, the humor, and the poetry that one finds in the literature of 50-100 years ago. Reinsert the exclamation points! In short, make the reader want to read.

The past few centuries have seen music and the fine arts evolve away from formal structure and rigid rules, toward freedom of the imagination. In American writing, however, we have evolved in the opposite direction. The British, in general, have not yet succumbed. Have you noticed that you seldom fall asleep while reading a British textbook?

I am suggesting that since it is our professional duty to experiment with the contents of our environment, we can experiment with the form and style of our writing. It is, after all, this mode of communication that allows science to build upon its past.

Franklin S. Glickman, M.D.,
Brooklyn, New York.

READY AND WAITING

Proven or promising locations throughout Pennsylvania, for rewarding medical practice, await general practitioners and specialists. Some communities have offices and other facilities just waiting to be taken over by physicians interested in establishing practice. Investigate the possibilities by contacting PHYSICIAN PLACEMENT SERVICE, Pennsylvania Medical Society, 230 State Street, Harrisburg, Pa. 17105.

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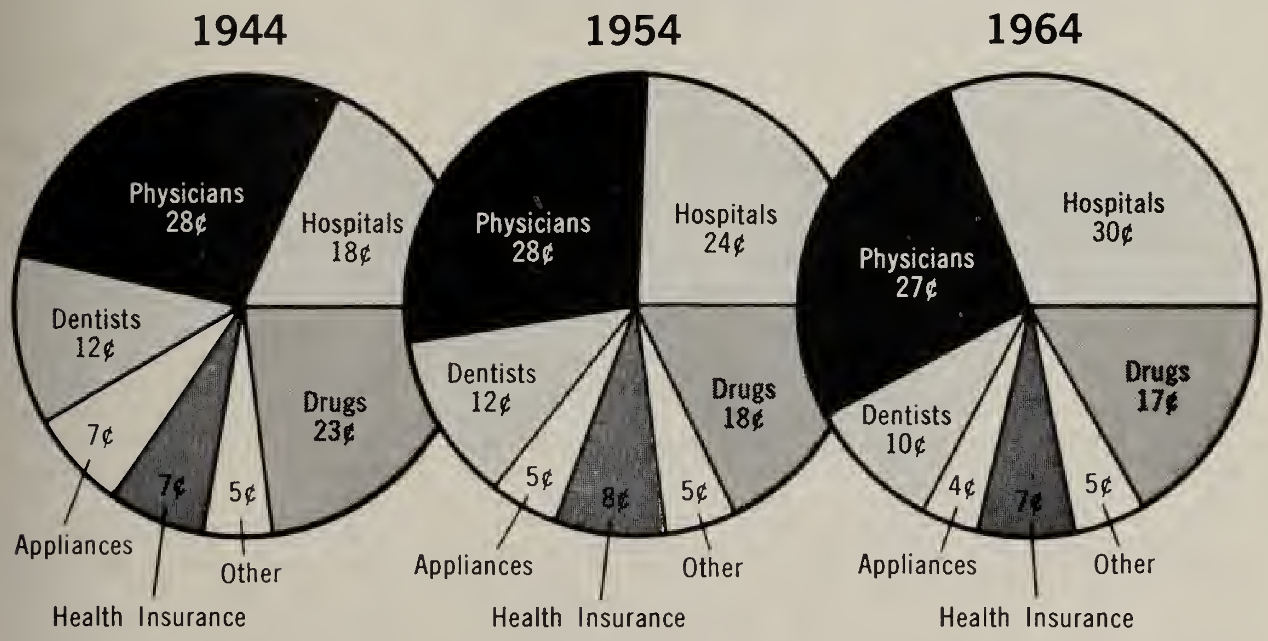

SURVEY OF CURRENT BUSINESS, November 1965, Vol. 45, No. 11
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In My Opinion . . .

Lumps

The American public is an educated public in matters pertaining to personal health and has more than a casual knowledge of the so-called "danger signs" and their significance. One of these danger signs is the "lump." While most lumps are not cancerous, the physician is usually consulted when one is discovered. Since many of these (such as lipomata and sebaceous cysts), are readily identified as such on examination, the patient can promptly be reassured as to their innocence. Their removal is simple; this is what the patient desires, and it is what is proper; for while liposarcomas or carcinomas in sebaceous cysts are rare, such growths do resemble their benign counterparts and can be differentiated only by the microscope.

A more important problem, especially in women, is the lump in the breast. In ninety-five out of every hundred instances it is discovered by the patient. Cancer of the breast is a common disease and most women have personal knowledge of its significance, through past experience with a friend or relative.

This background leads to an anxiety which demands prompt attention by the physician. Is a lump actually present on physical examination, and if so, what is it? All too frequently, careful examination reveals the skin fixation and dimpling or nipple retraction which makes the clinical diagnosis of cancer almost certain and the course of therapy clear.

Even more frequently, the lump is felt but the stigmata of cancer are absent. What is the approach now? If she is told to watch it we hope the patient will show more intelligence than the examining physician, by consulting someone else because she realizes that it should be removed. Should she be advised to have an x-ray study of the breast in an effort to establish the diagnosis and thus possibly avert a trip to the hospital, and an operation? This advice may appeal to her, for she will believe that a reliable diagnosis can be made in this manner. She is no longer on safe ground, for she has no knowledge of the procedure or its limitations, and will have no way of knowing that it is inaccurate and that it has virtually no place in the diagnosis of the palpable tumor.

Mammography is not a new procedure. Tried years ago, it was abandoned because it was inaccurate. With the help of more sensitive materials and with improved technique it has become possible to differentiate between benign and malignant lesions of the breast with a greater degree of accuracy.

In spite of this improvement, it still lacks the degree of accuracy necessary to make it a reliable diagnostic tool. The enthusiasm with which the procedure has been received makes it all the more dangerous, for it suggests that many women who do have an early cancer of the breast will be denied prompt treatment through mistaken diagnosis. Furthermore, if one cannot rely on the roentgenologist's report, there is no point in doing the examination. *Mammography was never intended to replace biopsy of the palpable breast tumor and it should not be so used.*

The technique *is* of value in revealing at times a small mass which has escaped clinical discovery, and as such is useful in screening the remaining breast of patients in whom careful examination fails to reveal the cause of the complaint. Even then it only reveals the presence of a mass and does not make the diagnosis. The involved area must still be removed for microscopic examination.

When a lump is found in the breast, remove it.

James R. Watson, M.D.,
Pittsburgh.

P·R·N.

We stopped at the under-construction future home of the PMS the other day, picked our way through the usual debris and impedimenta of such projects, and treated ourselves to a tour of the first and second floors. The building is truly beautiful—and practical!

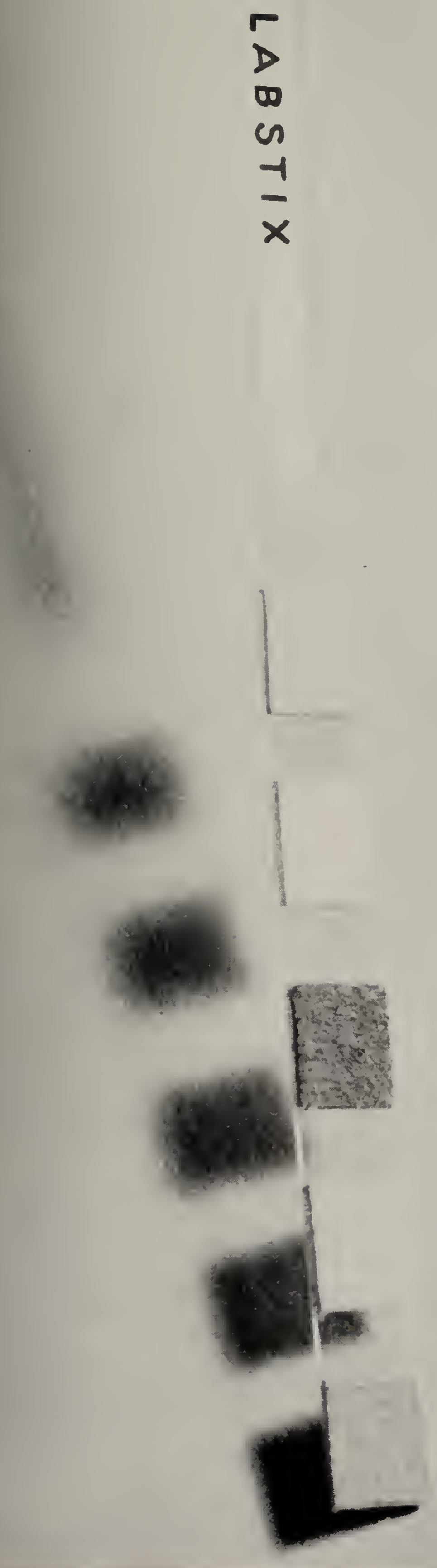
But the PMS staff has mixed emotions about moving "across the river." Some of our people have been working at 230 State Street for thirty years or more, and the place is like home to them. Even some of the more-recently-employed individuals have a genuine fondness for this building. True, it has its faults (what building hasn't—especially one that has served for so many years and so many purposes?), and we all agree that it is inadequate for the needs of today's Pennsylvania Medical Society.

But it's a pleasant old building, with a warmth and a familiarity that will be lacking in the new one.

This is not to say, however, that the staff doesn't look forward to the move. PENNSYLVANIA MEDICINE has not taken a poll, but we get the impression that—mixed with nostalgia for 230 State—is interest and anticipation centered in the building on the hill. Noontime shopping and errands won't be so feasible, but walks on almost-rural roads, and "sits" out-of-doors, in pleasant weather, will be a delightful reality (we have had to go to River Park for grass). There will be no parking lot dilemmas ("Will you please move your car so I can get out?"), and we'll almost never have to go to a rented hotel facility to hold meetings.

But we'll miss the quaint old buildings that have been among our neighbors on State Street. We'll miss the parades that have trooped by within a hundred feet of our headquarters. We'll miss the bells of St. Patrick's cathedral, and the mellow sound of Robert Clippinger's organ practice at Grace Methodist next door.

We'll even miss the meter maids who have kept life interesting as they coursed up and down the median parking area of our street, looking for "VIOLATION" flags!



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In prescribing: Dosage — Adults: Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hrs, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d. Geriatric patients: 1 or 2 mg/day initially, increase gradually as needed.

Contraindications: Infants, patients with history of convulsive disorders or glaucoma.

Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.

Precautions: Limit dosage to smallest effective amount in elderly patients (not more than 1 mg, one or two times daily) to preclude ataxia or oversedation. Advise patients against possibly hazardous procedures until correct maintenance dosage is established; driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. Warn patients of possible combined effects with alcohol. Safe use in pregnancy not established. Observe usual precautions in impaired renal or hepatic function and in patients who may be suicidal; periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances and hallucinations) and changes in EEG patterns. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.

Supplied: Tablets, 2 mg, 5 mg and 10 mg; bottles of 50 for convenience and economy in prescribing.

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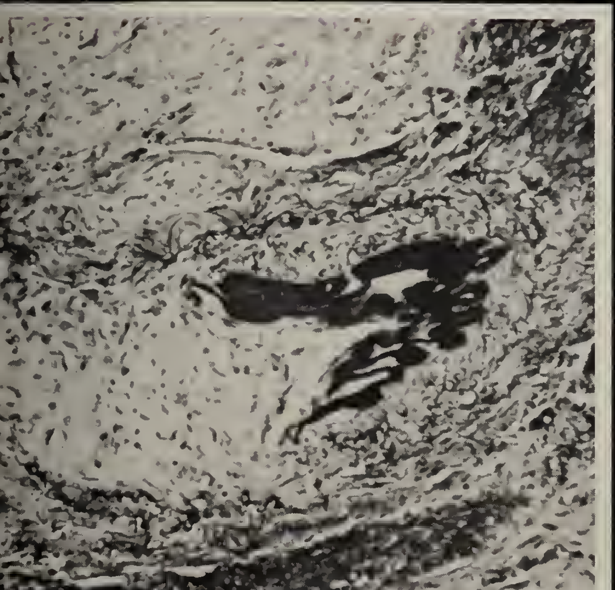

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Six years postoperatively, in spite of formidable complications, the patient continues to do well—with only a residual 30 centimeters of jejuno and ileum—Page 27

MEDICINE-MEDICARE TERMINOLOGY CLARIFIED

Sydney E. Sinclair, M.D., explains implications of terms such as "reasonable," and "usual and customary," in relation to the Prevailing Fee concept – Page 40

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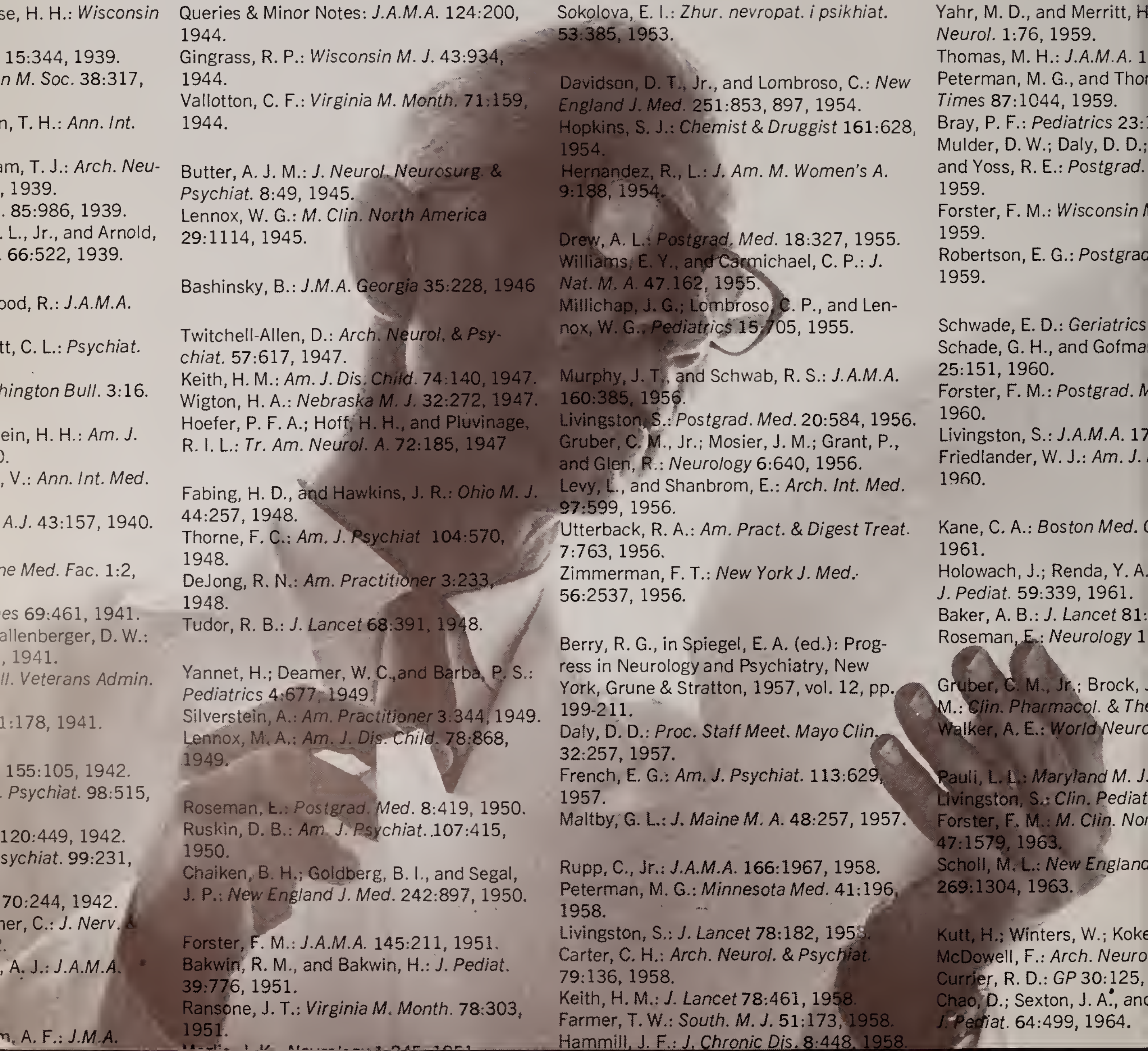

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LATE News HIGHLIGHTS

July, 1966

MEDICARE MOVES IN

July 1, 1966—Unlike any previous July 1 in medical history (or any other kind) . . . **Medicare is here** . . . Social Security headquarters in Baltimore have set up an around-the-clock information service to help its district offices cope with queries from physicians, hospital administrators, medicare beneficiaries, and others . . . Page 40 of this issue of **Pennsylvania Medicine** presents an interview with the director of Blue Shield of Pennsylvania (medicare carrier for the state).

SIX FUTURE M.D.'S EARN PMS TRUST SCHOLARSHIPS

Two "firsts" highlight news of 1966 medical scholarship awards of the State Society's Educational Fund of The Educational and Scientific Trust: for the first time in the five-year history of the program, a young lady is among the scholarship recipients, and also for the first time—**six** students were selected (previously there have been four per year). . . . The future woman doctor chosen is **Miss Sandra E. Briggs**, who lives near Washington, Pennsylvania. Also selected, from the field of 91 eligible students who applied, are **Sigmund A. Weitzman, Alan Cohler, Richard L. Malen, Jeffrey M. Hoffman,** and **Harold Rosen,** all of Philadelphia. . . . Our August issue will include a detailed feature article on Miss Briggs and the five young men.

MISS BRIGGS

PENNSYLVANIA PHYSICIANS HONORED

Recently-elected Fellows of the American College of Physicians include the following M.D.'s: **Herbert L. Hyman** and **Stanley E. Zeeman**, Allentown; **Joseph M. Gambescia**, Bala; **Theodore S. Duncan**, Bala-Cynwyd; **Myron E. Resnick**, Broomall; **Fred D. Raymond, Jr.**, Bryn Mawr; **Herbert Unterberger**, Drexel Hill; **Donald F. Heiman** and **Edward B. Polin,** Elkins Park; **Milton Engel** and **Charles A. Joy**, Erie; **David M. Wilkins**, Glenshaw; **H. Phelps Potter, Jr.**, Haverford; **Arthur J. Weiss,** Huntington Valley; **Donald Berkowitz** and **W. Bernard Kinlaw, Jr.**, Jenkintown; **Roderick L. Tondreau**, Meadowbrook; **M. Jay Goodkind**, Merion; **Isadore Brodsky** and **William Fraimow**, Merion Station; **William E. Barry, Gordon Bendersky, Walter M. Bortz, II, Albert N. Brest, J. William Cox, Jay H. Davidson, H. James Day, Louis R. Dinon, William S. Frankl, Farid I. Havrani, Carl Levenson, Walter J. Levinsky, Norman Makous, Edwin Polish, Richard H. Saunders, Jr., Henry P. Schwarz, Bernard L. Segal, Bertram Shaffer, Stanley Spoont**, and **William J. Williams,** all of Philadelphia; **Philip Brostoff, Robert T. P. deTreville, Frederick C. Duffy, Robert S. Goldbloom, John A. Kenny, Margaret J. Maclachlan,** and **Ruben Snyderman,** all of Pittsburgh.

NEWS FROM WASHINGTON

Passed by the House of Representatives 367-1 is a bill based on the principle that a narcotics addict is a sick person rather than a criminal. A charged addict could, at the discretion of the presiding judge, choose to enter an approved hospital or other facility, rather than a prison, for up to three years; if convicted of an addiction-associated felony, the patient could be committed to a treatment center for up to ten years, rather than being incarcerated. . . . The Senate has approved a bill setting up stricter controls on the handling of research animals.

JOB PLAN MAY LEAD YOUTHS TO MEDICINE

Once again, Smith Kline & French Laboratories are sponsoring summer health-field employment for outstanding Pennsylvania and Ohio undergraduates, in the hope that the experience may induce them to enter medical or paramedical professions. Each of the twenty-nine young people involved in the program is assigned to one of the following: Hahnemann Medical College, Jefferson Medical College, the University of Pennsylvania School of Medicine, Woman's Medical College of Pennsylvania, University of Pittsburgh School of Medicine, or Western Reserve University School of Medicine.

DR. BRYAN HEADS PAGP

Ross E. Bryan, Jr., M.D., Warren, is the new president of the Pennsylvania Academy of General Practice.

M.D. DRAFT CALL CUT

The Department of Defense has reduced the summer draft call for physicians from 2,496 to 1,713. The Army will call 958, the Navy, 405, and the Air Force, 350.

NEXT MONTH

Peristalsis—antrum and pyloric canal, as visualized by gastrocamera.

DIAGNOSIS BY GASTROCAMERA

An invaluable photographic aid to diagnosis of gastric symptoms is described by an affiliate of the Guthrie Clinic, Sayre.

MASSIVE PULMONARY CAVITATION

A case complicated by jaundice and splenomegaly is the subject of a clinicopathological conference at Presbyterian-University Hospital, Pittsburgh.

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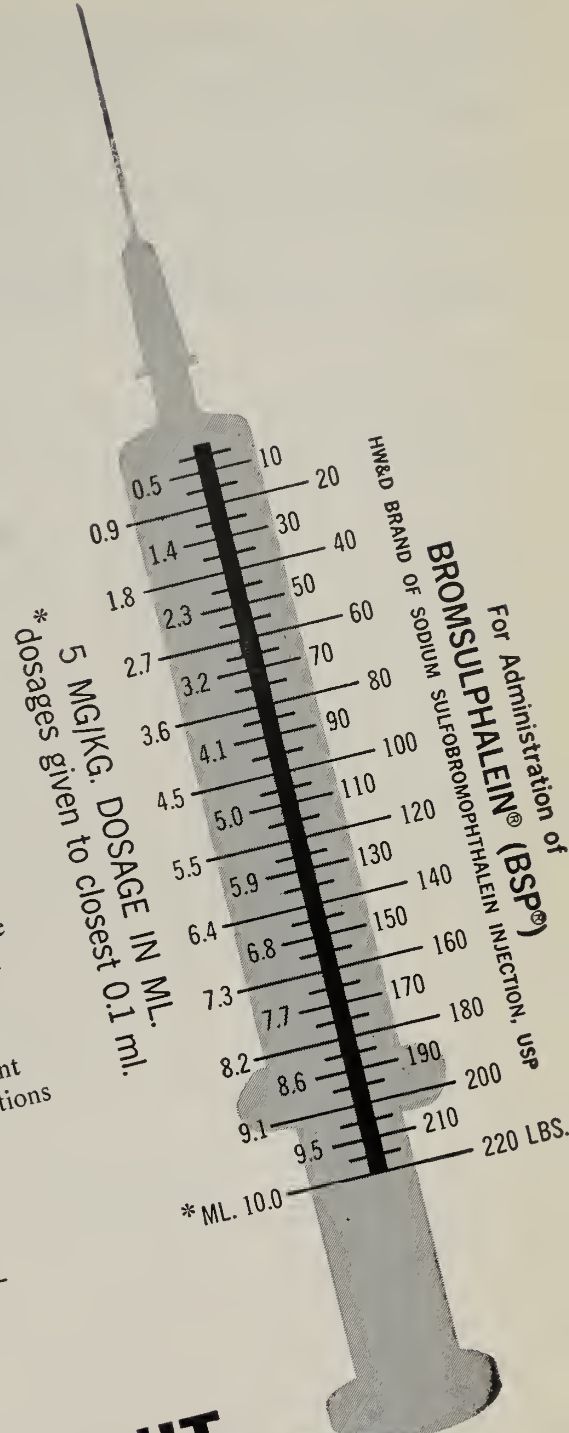

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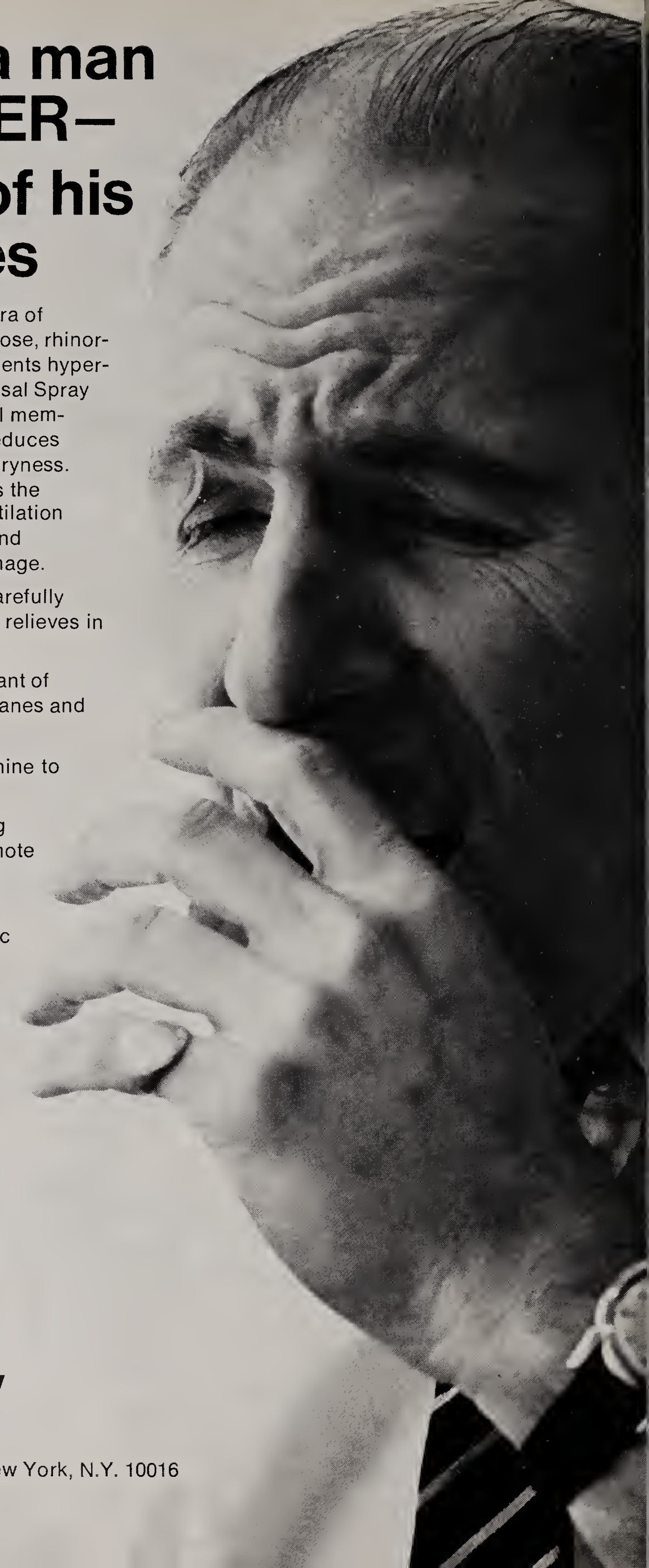

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JULY, 1966 VOLUME 69 NUMBER 7

ORIGINAL PAPERS

EXTENSIVE JEJUNO-ILEAL RESECTION

Drs. H. Phelps Potter, Jr.
and David R. Bassett

Left with only 30 cm. of her jejunum and ileum six years ago, and subjected to numerous postoperative physical problems, a young woman is well and active. Page 27.

SUDDEN PARESIS IN AN ALCOHOLIC

Drs. Robert S. Totten
and Campbell Moses

From the Presbyterian-University Hospital, Pittsburgh, a clinicopathological conference on an unusual and complicated case. Page 31.

A POTENT NEW ANTIEMETIC AGENT

Drs. Fred J. Phillips, Chui Ling Chai,
and David M. Shoemaker

When diphenidol was used in patients of varying ages, nausea and vomiting due to a number of causes were relieved in an impressive majority. Page 46.

A DRUG TO RELIEVE MUSCLE SPASM

Colin L. Kamperman, M.D.

Carisprodol brought relief to more than two-thirds of a group of patients suffering from musculoskeletal afflictions. Page 48.

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Side effects: Drowsiness may occur and, rarely, ataxia, usually controlled by decreasing the dose. Allergic or idiosyncratic reactions are rare, generally developing after one to four doses. Mild reactions are characterized by an urticarial or erythematous, maculopapular rash. Acute nonthrombocytopenic purpura with peripheral edema and fever, transient leukopenia, and a single case of fatal bullous dermatitis after administration of meprobamate and prednisolone have been reported. More severe and very rare cases of hypersensitivity may produce fever, chills, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, anaphylaxis, stomatitis and proctitis. Treatment should be symptomatic in such cases, and the drug should not be reinstituted. Isolated cases of agranulocytosis, thrombocytopenic purpura, and a single fatal instance of aplastic anemia have been reported, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity has been reported, usually after excessive meprobamate dosage. Suicidal attempts may produce lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

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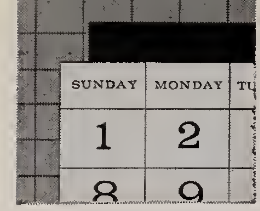

THIS MONTH

State Society Advocates Medicare Direct Billing

Advantages of the direct billing of patients covered by Part B of the medicare law were reiterated by the PMS Board of Trustees in its most recent meeting.

At a special meeting in January of this year, the Board pointed out that direct billing rather than the acceptance of an assignment would be the best way to maintain the traditional physician-patient relationship.

When a physician accepts an assignment, he must fill out a Part B form, submit it to the fiscal agent (Blue Shield), accept the fiscal agent's determination of "reasonable charges," and agree that those "reasonable charges" shall be his full bill.

After the $50 deductible has been met, the fiscal agent reimburses the physician for 80 percent of the "reasonable charges" and the physician must then submit a second bill to the patient for the remaining 20 percent.

When the traditional direct billing is used, the physician submits his bill to the patient in the normal way whereupon the patient is responsible for collecting from the fiscal agent, for covered services.

Under the direct billing advocated by the State Society Board, the physician bills the Part B medicare patient in the same way other patients are billed. The only requirements under direct billing are that the bill list the date on which the service was performed, the place where the service was provided, and a description of the service, plus, the diagnosis and the charge. These can be entered on the physician's usual billing form.

When the physician accepts an assignment, he must fill out a special Part B form which includes the information demanded under direct billing, plus certain additional information detailed on the form. In accepting an assignment, the physician has no formal way of knowing whether or not the $50 deductible has been met; he therefore may, in submitting the form to the fiscal agent, be told that he must bill the patient directly until the $50 deductible has been satisfied.

The State Society Board points out that under the direct billing procedure, there will be less confusion and less paper work for all parties involved, and that such direct billing will maintain the normal relationship between physician and patient.

In June, Physician handbooks on the medicare law, published by the Social Security Administration, were mailed to all physicians. A copy of the Part B form required when an assignment is accepted appeared in the May issue of the PMS *Newsletter.*

Blue Shield Plans Expand For Medicare

Thirty-three Blue Shield Plans, covering over 60 percent of medicare recipients, are administering Part B (the supplemental medical insurance program of medicare) for the government. When seven Part B carriers across the country were recently contacted by the National Association of Blue Shield Plans, all but one indicated considerable expansion of their computer operations in anticipation of the increased volume of work. The National Association reports, however, that preparations are generally proceeding without much difficulty. Some Plans indicated a problem in finding qualified personnel, but most were able to acquire the needed additional staff.

Pennsylvania Blue Shield reported that it has been "tooling up" for medicare since its appointment as a Part B carrier. Three task forces composed of Plan executives, and eight work groups comprised of department heads and their assistants, have been making preparations.

The Colorado Plan, according to a director, has set up an entirely new unit—the Contract Services Division, headed by a vice-president—to handle the anticipated increased administration. Most of the Plans contacted indicated they have formed separate divisions to handle the administration of medicare.

Awards at Jefferson

John H. Hodges, M.D., the Ludwig A. Kind professor of medicine at Jefferson Medical College, and Albert E. O'Hara, M.D., assistant professor of radiology, also of Jefferson, have been awarded the Christian R. and Mary F. Lindback Awards for excellence in teaching.

Free Drugs for Needy

Roche Laboratories is providing pharmaceuticals without charge to indigent private patients, according to a report in *Parade.*

Physicians have been notified that if a patient's financial status makes it impossible for him to purchase drugs in accordance with prescription specifications, Roche will supply the needed drugs on M.D.s' written requests.

"All you need do for our records is briefly state the circumstances of each case," Roche has told doctors, "but there is no need to give patients' names. Requested medications will be forwarded to you promptly.

- New Pennsylvania Blue Shield members for 1965—135,000 strong—brought the enrollment total to a new peak of 4,782,434. Total membership for the United States, Puerto Rico, and Canada reached 57,910,154.

illustration after Boyden

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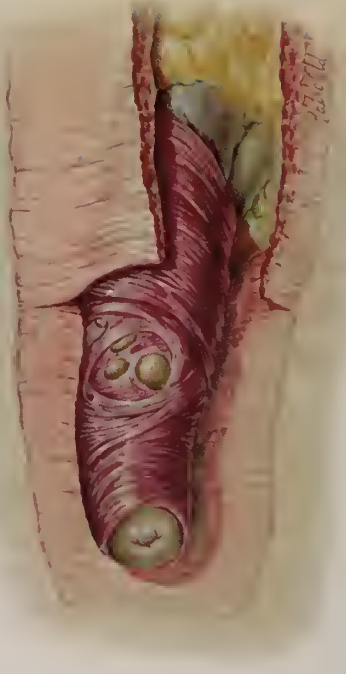
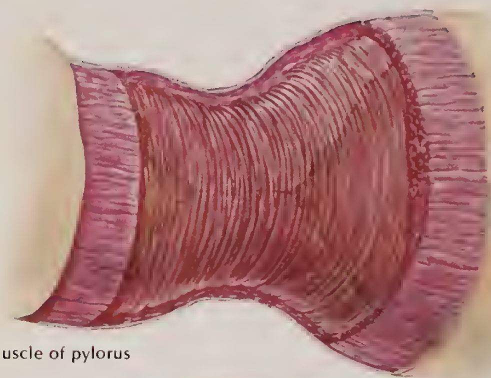
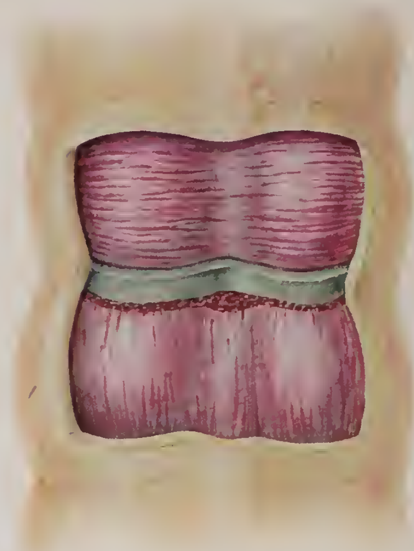


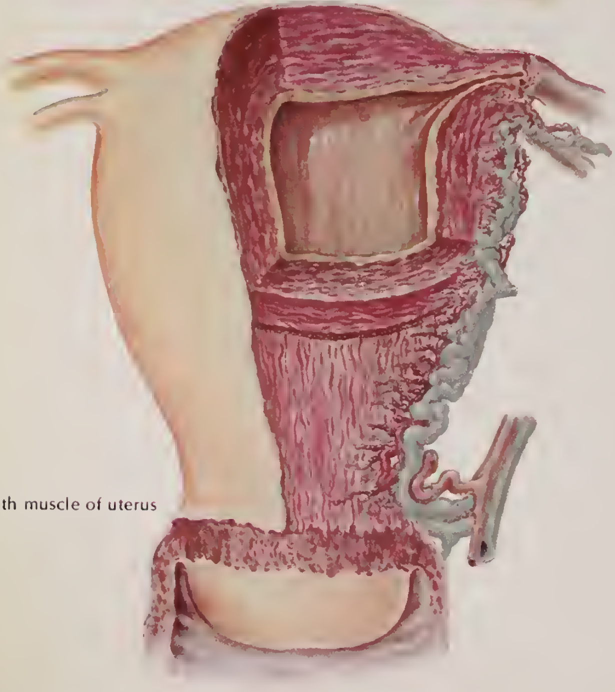
smooth muscle sphincter of Oddi



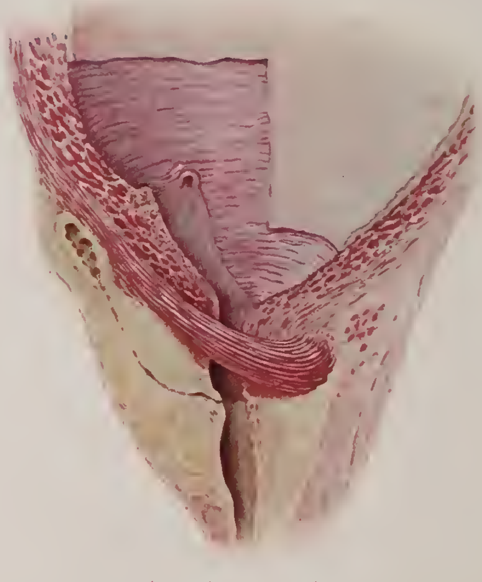
smooth muscle of pylorus



smooth muscle of colon



smooth muscle of uterus



smooth muscle of urinary bladder

Einstein Winds Up Its Centennial Observance

Thomas M. Durant, M.D., Philadelphia, presented "Thoughts on Medical Education Today" in speaking to some four hundred guests at the annual dinner of Albert Einstein Medical Center in mid-June. Dr. Durant was recently named chairman of the center's division of medicine.

The occasion marked the closing of Einstein's nine-month centennial observance. Honored during the dinner were Jacob Gershon-Cohen, M.D., Arlin Adams, and Morris Wolfe.

During the board of trustees' meeting prior to the dinner, Pascal F. Lucchesi, M.D., executive vice-president and medical director of the center, characterized the past year as one of "revolution, unlike any other in hospital history."

Child Mental Health Study Given Grant

The newly-formed Joint Commission on the Mental Health of Children has been awarded a $500,000 grant for the first year of a two-year study on the mental health of children in the United States. The grant was made by the National Institute of Mental Health. Experts estimate that as many as 500,000 American children have psychosis and borderline mental conditions and that another 1,000,000 children suffer from various mental disorders.

The commission, whose organization parallels that of the Joint Commission on Mental Illness and Health, is comprised of thirteen major national organizations, headed by the American Psychiatric Association.

Executive director of the new commission will be Dr. Joseph H. Bobbitt, now associate director of the National Institute of Child Health and Human Development.

The major portion of the study will be carried on by task forces, university research centers, and other appropriate groups. Stanley F. Yolles, M.D., director of the National Institute of Mental Health, took part in ceremonies in which Reginald S. Lourie, M.D., president of the commission, received the grant from Wilbur J. Cohen, undersecretary of Health, Education and Welfare.

COLLECTOR'S DELIGHT—Charles B. Fager, M.D. (right), Harrisburg, presents medical items originally belonging to his late ancestor, John Fager, M.D., also of Harrisburg, to Irwin Richman, Ph.D., chief of the Science, Industry, and Technology Section of the William Penn Museum in the capital city. Included are medical class admission cards of 1827-8 and of the 1880's, notes from lectures by Nathaniel Chapman and Benjamin Rush, and nineteenth century sunglasses. These and other professional artifacts make up the new medical exhibit area of the museum.

Dr. Lewis Heads HUP

A former chairman of the utilization committee at Pittsburgh Hospital is the new director of the Hospital Utilization Project of western Pennsylvania.

Paul M. Lewis, M.D., succeeds Sidney Shindell, M.D., who has joined the Marquette University faculty.

A native Pennsylvanian, Dr. Lewis is an alumnus of the University of Pennsylvania School of Medicine, and received postgraduate training in otolaryngology at the New York University Post-Graduate Medical School.

Dr. Armitage Serves

Harry V. Armitage, M.D., Chester, chairman of the PMS Council on Medical Service, is serving an interim term on the Pennsylvania Blue Shield board of directors to fill a vacancy created by the resignation of John S. Donaldson, M.D., Pittsburgh.

- An American scientist and a Jordanian physician, working at a hospital in Jerusalem, have shown that deficiencies of minute amounts of chromium are associated with certain aspects of malnutrition in human beings.

Eyes Will Be Protected in Philadelphia Schools

City and State regulations establish safeguards for pupils and teachers

At an estimated cost of $200,000, the Philadelphia public school system has implemented programs for pupils' and teachers' eye safety, according to Ralph C. Lanciano, M.D., assistant director of the city's Division of Medical Services.

One program, following recommendations of the Philadelphia County Medical Society, stresses the wearing of shatterproof lenses; the other involves an act of Pennsylvania's General Assembly providing for the use of protective devices by persons exposed to known dangers in schools, colleges, and universities.

"In consonance with the recommendations of the Eye Section and the Subcommittee on Ophthalmology of the Philadelphia County Medical Society, requesting all practicing ophthalmologists in the city of Philadelphia to recommend the wearing of safety shatterproof lenses for their patients," Dr. Lanciano said, "the Eye Department of the Division of Medical Services has initiated these recommendations applicable to all school children receiving eyeglasses in the School Eye Clinic and hospital programs."

The program is already in effect in the five eye clinics of the Board of Education, and in the contractual arrangement between the schools and eight cooperating hospitals.

Children treated at the school clinics are being supplied with the safety lenses, as are school children referred to the hospital clinics. This portion of the program, according to Dr. Lanciano, will cost the school system between $40,000 and $50,000.

The state-mandated program to cost more than $150,000, involves the following specifications:

"Every teacher, student, visitor, spectator, and every other person in any shop or laboratory in public or private schools, colleges, and universities, who is engaged in or who is within the area of known danger created by: (1) the use of hot liquids, solids, or gases, or caustic or explosive materials, or (2) the milling, sawing, turning, shaping, cutting, grinding, or stamping of solid materials, or (3) the tempering, heat-treatment, or kiln-firing of metals and other materials, or (4) gas or electric welding, or (5) the repairing or servicing of vehicles, shall wear industrial-quality eye protective devices at all times while engaged in such activities or exposed to such known dangers."

The portion of the program pertaining to teachers became effective in May. Provisions for persons involved in summer school sessions began in June. The remainder of the program will take effect by September.

Appointments

New Temple Director

Arthur D. Nelson, M.D., has been appointed executive director of Temple University Hospital.

Dr. Nelson is associate dean of the Temple University School of Medicine and associate director for professional health services of the hospital. He is a 1957 graduate of the Temple Medical School and received internship and residence training at Montgomery Hospital, Norristown.

Dr. Nelson also served as president of the Montgomery County Medical Society in 1965, and is active on the Pennsylvania Medical Society's Commission on Medical Education.

Advanced Fellowship

Joseph C. Cleveland, M.D., chief surgical resident at Hahnemann Medical College and Hospital, was awarded a first-year advanced clinical fellowship in surgery by the American Cancer Society. He will be a fellow at Hahnemann.

New Robins Official

Appointed as an assistant vice-president of the A. H. Robins Company, Richmond, Virginia manufacturers of pharmaceuticals, is Dr. Carl D. Lunsford.

A Richmond native, Dr. Lunsford joined the corporation in June, 1953, as a research chemist. Since June, 1964, he has been director of research.

Family Team

Genevra S. Fleagle, M.D., has been named to the medical staff of the Ritenour Health Center at The Pennsylvania State University, where her husband, Samuel B. Fleagle, M.D., also serves as a physician.

Dr. Genevra Fleagle, an alumna of the university, received her medical degree from the Woman's Medical College of Pennsylvania. She completed her internship at the Harrisburg Hospital and was a resident there in general medicine.

From 1948 until last year, she practiced in East Smithfield, Bradford County.

Woman's 'Tops Out' Wing

'Topping out' of the new $7.3 million clinical teaching and services wing of the Woman's Medical College of Pennsylvania was celebrated with a flag raising ceremony in mid-May.

The building represents a part of the college's current $10.5 million program for expanding and rehabilitating old facilities for new uses. It is the first project in a $40 million development program.

With the completion of the wing, scheduled for early 1967, the college hospital will have a total of four hundred beds and all of the newest and most effective ancilliary facilities for patient care.

Golden Nuggets

"Your workshops* at the 1965 Pennsylvania Medical Society [Annual Session] were just the 'shot in the arm' . . . needed to renew interest. Keep up the good work!

"The choice of faculty was superior; their presentations were excellent and practical, but the time allotted, unfortunately, too short."

Arthur S. Griswold, M.D., Lititz,
General Practitioner.

* Similar courses are being prepared for the 1966 TEACHING INSTITUTE to be held October 9-11 in Pittsburgh.

when readings indicate hypertension

Time for Naturetin®

SQUIBB BENDROFLUMETHIAZIDE

to reduce blood pressure

In the management of your hypertensive patients, Naturetin is good therapy to start with, good therapy to stay with.

In mild hypertension, Naturetin lowers blood pressure gradually toward normotensive levels. In long-term therapy, Naturetin may keep blood pressure low—for months, sometimes years. When used in combination with other antihypertensive agents, blood pressure often falls further—and lower doses of both drugs are usually possible. Clinical trials have proven Naturetin effective—without serious side effects.[1,2] And, when used to treat patients with cardiac edema and hypertension, "in no instance did the concentration of serum potassium fall below 3.1 mEq. per liter."[3] (Normal range for serum potassium: 3.5-5.0 mEq./liter).[4]

When readings indicate hypertension, start with Naturetin, stay with Naturetin.

Contraindications: Severe renal impairment; previous hypersensitivity.

Warning: Ulcerative small bowel lesions have occurred with potassium-containing thiazide preparations or with enteric-coated potassium salts supplementally. Stop medication if abdominal pain, distension, nausea, vomiting, or G.I. bleeding occur.

Precautions: The dosage of ganglionic blocking agents, veratrum, or hydralazine when used concomitantly must be reduced by at least 50% to avoid orthostatic hypotension. Electrolyte disturbances are possible in cirrhotic or digitalized patients.

Side Effects: Bendroflumethiazide may cause increases in serum uric acid, unmask diabetes, increase glycemia and glycosuria in diabetic patients and may cause hypochloremic alkalosis, hypokalemia; cramps, pruritus, paresthesias, and rashes may occur.

Supplied: Naturetin (Squibb Bendroflumethiazide) 5 mg. and 2.5 mg. tablets. Also available—Naturetin c̄ K [Squibb Bendroflumethiazide (5 or 2.5 mg.) with Potassium Chloride (500 mg.)]. For full information, see Product Brief.

References: 1. Telfeyan, S. A.: Clin. Med. *70*:1668, 1963. 2. Shepard, H. L.: J. Am. Geriatrics Soc. *11*:363, 1963. 3. Cummings, D. E.; Goodman, R. M., and Steigmann, F.: J. Am. Geriatrics Soc. *12*:161, 1964. 4. Castleman, B., ed.: New England J. Med. *268*:1462, 1963.

SQUIBB Squibb Quality
—the Priceless Ingredient

Most of my patients with high blood pressure are as old as I am. A lot of them are living on pensions. They're grateful when I can keep prescription costs down.

Regroton®

chlorthalidone 50 mg. reserpine 0.25 mg.

1 tablet daily brings pressure down

Advantage: Both components of Regroton are long-acting.
Average dosage: One tablet daily with breakfast.
Contraindications: History of mental depression, hypersensitivity, and most cases of severe renal or hepatic diseases.
Warning: Discontinue 2 weeks before general anesthesia, 1 week before electroshock therapy, and if depression or peptic ulcer occurs. With administration of enteric-coated potassium supplements, the possibility of small bowel lesions should be kept in mind.
Precautions: Reduce dosage of concomitant antihypertensive agents by one-half. Discontinue if the BUN rises or liver dysfunction is aggravated. Electrolyte imbalance and potassium depletion may occur; take particular care in cirrhosis or severe ischemic heart disease, and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended. Use with caution in patients with ulcerative colitis, gallstones, or bronchial asthma.
Side effects: Nausea, vomiting, diarrhea, muscle cramps, headaches and dizziness. Potential side effects include angina pectoris, anxiety, depression, drowsiness, hyperglycemia, hyperuricemia, lassitude, leukopenia, nasal stuffiness, nightmare, purpura, urticaria, and weakness.
For full details, see the complete prescribing information.
Availability: Bottles of 100 and 1000 tablets.

Geigy

M.D.'s in The News

The winner of the seventh annual Edward Bell Krumbhaar Prize, which honors the memory of the late professor of pathology at the University of Pennsylvania School of Medicine, is **Miss Jeannette R. Munson,** a third-year student at the Temple University School of Medicine.

Campbell Moses, M.D., Pittsburgh, was a guest speaker at a symposium on clinical medical and surgical problems, held at Shamokin Dam. Dr. Moses, director of the Addision H. Gibson Laboratory and the Postgraduate Education Program, University of Pittsburgh School of Medicine, presented "The Signposts of Vascular Disease."

DR. MOSES

The recipient of the Resident's Prize given by the Obstetrical Society of Philadelphia is **Anthony T. LeDonne, M.D.,** Darby.

James M. Shaffer, M.D., Jenkintown, has been named a senior director of medical research for Merck Sharp & Dohme Research Laboratories, West Point.

James W. J. Carpender, M.D., formerly of Chicago, now heads the Guthrie Clinic department of radiation therapy. **Theodore A. Tristan, M.D.,** formerly of Philadelphia, has joined the clinic's section on diagnostic radiology.

LeRoy H. Stahlgren, M.D., Philadelphia, has been appointed director of the department of surgery at Episcopal Hospital, and professor of surgery at the Temple University School of Medicine.

Charles G. Jones, M.D., Grove City, is a new member of the administrative board of the community's Visiting Nurse Association.

Carl C. Kuehn, M.D., Camp Hill, recently became president of the Association of State and Territorial Directors of Local Health Services.

Thomas M. Durant, M.D., Philadelphia, has assumed the Paul J. Johnson Chair of Medicine at the Albert Einstein Medical Center. He resigned his post as chairman of the division of medicine at the Temple University School of Medicine, but will continue as a professor of medicine. He was the main speaker at the center's fifteenth annual dinner in mid-June, and the guest of honor at a reception preceding it.

Participating in the Twentieth Annual Conference of the Woman's Auxiliary to the PMS, held in Harrisburg, were the following M.D.'s: **William B. West,** Huntingdon (State Society president), **William P. Camp,** Norristown, **Walter I. Buchert,** Danville, **Joseph T. Freeman,** Philadelphia, **J. Stanley Smith,** Harrisburg, **H. Robert Davis,** Boiling Springs, **James W. Minteer,** Ridgway, **Frank H. Ridgley,** West Chester, **Arthur E. Pollock,** Altoona, and **Jack White,** West Chester.

Robert E. Shoemaker, M.D., Allentown, received the Distinguished Service plaque of the Pennsylvania Academy of Ophthalmology and Otolaryngology at its meeting in late May. Dr. Shoemaker, who was chairman of the former PMS Committee for the Conservation of Vision, is a Fellow of the American College of Surgeons and of the American Academy of Ophthalmology and Otolaryngology.

Arrangements have been made for **Robert A. Benninger, M.D.,** Sharon, to proceed with plans for a clinic in Haiti for the treatment of Haitian residents.

M. Price Margolies, M.D., devoted two months to medical work in Honduras, under sponsorship of CARE-MEDICO. Dr. Margolies is a former president of the Chester County Medical Society.

Newly-elected Junior Fellows of the American College of Obstetricians and Gynecologists include **Drs. A. Athari-Nejad,** Pittsburgh, **Ivan E. Beachy,** Camp Hill, **Ping Chang Chung,** Allentown, **Charles J. Gueriera,** Philadelphia, and **Garner M. Robertson,** Pittsburgh.

Joseph B. Wolffe, M.D., Philadelphia, was honored recently for his long service to medicine.

The new clinical director of the Hamburg State School and Hospital is **George Maksim, M.D.,** formerly of Washington, D. C.

Donald A. Dupler, M.D., Bryn Mawr, has been elected a member of the board of trustees of the American College of Cardiology.

Victor J. Margotta, M.D., has for the second time been honored for service as a member of the board of directors of Blue Shield.

Faculty members promoted at Temple University School of Medicine included the following physicians: **Frederick Murtagh, Jr.,** Wynnewood, **John W. Lackhman,** Villanova, **Steven Hammerman,** Cynwyd, **Elinor M. Glauser,** Wayne, **Joseph H. Toglia,** Ardmore, **Samuel L. Cresson** and **John H. Martin,** both of Bryn Mawr, and **Harold L. Hyman, John H. Kolmer, William Mark,** and **Vincent W. Lauby,** all of Bala-Cynwyd.

Guest speakers at the annual meeting of the Ohio State Medical Association included **Otto C. Phillips, M.D.,** Pittsburgh, and **George M. Shy, M.D.,** Philadelphia.

The president-elect of the Pennsylvania Psychiatric Society is **Charles F. Taylor, M.D.,** York.

Donal F. Sweeney, M.D., has joined the staff of the Guthrie Clinic, Ltd., Sayre, to develop a new section of pulmonary diseases and pulmonary function. For the past four years, Dr. Sweeney has been chief of the pulmonary disease service and of inhalation therapy at the hospital at Travis Air Force Base, California. He belongs to Alpha Omega Alpha, the AMA, the American Thoracic Society, the American Society of Inhalation Therapists, and a number of other medical and professional organizations.

DR. SWEENEY

Whittier C. Atkinson, M.D., Coatesville, has been reelected president of the Chester County Tuberculosis and Health Society. **Erwin R. Zeller, M.D.,** West Chester, is second vice-president, and **Michael B. Dooley, M.D.,** Phoenixville, is on the board of directors.

Gerald R. Clark, M.D., Elwyn, has been named to an interim appointment as state commissioner of mental retardation.

Thirty-eight Phoenixville Hospital staff members honored **Joseph G. Ross, M.D.,** on his retirement and his elevation to the post of honorary head of the medical staff.

State Society Fifty-Year Awards were presented to **Drs. William M. Donovan** and **Raymond J. Garvey,** both of Scranton, **Ulrich P. Horger,** Taylor, and **Mervyn M. Williams,** Gouldsboro. **Joseph A. Walsh, M.D.,** Blakely, Third District Councilor, made the presentations at a meeting of the Lackawanna County Medical Society.

Louis A. Soloff, M.D., Philadelphia, was a featured speaker at a heart seminar at Lancaster General Hospital attended by physicians and paramedical personnel from a seven-county area.

Harry Fields, M.D., Philadelphia, was honored by Har Zion Temple for his service to the medical profession and to his faith, his community, and the cause of economic progress in Israel.

Students at Temple University School of Medicine presented "Golden Apple" plaques to: **Drs. H. James Day,** Abington, **Augustin R. Peale,** Philadelphia, and **Joel W. Eisner,** Pottstown. "Golden Apple" certificates went to: **Drs. Charles R. Shuman,** Jenkintown, and **Francis M. Leake** and **Robert D. Deitz,** both of Philadelphia. The awards honor the recipients for their "outstanding dedication, ability, and zeal" in furthering the students' education.

1965's 'New M.D.' Total Tops 1964's

Medical licensure for 1965 added 8,943 physicians to the nation's fund of M.D.'s, for a total of 292,088. The new "class" is larger by 1,032 than that of 1964.

Of all newly-licensed physicians, 7,445 attended U.S. and Canadian medical schools; the remaining 1,488 were graduated from foreign medical faculties. In recent years, about one-fourth of the foreign-trained graduates who have been issued first licenses have been Americans who attended medical schools outside the U.S. and Canada.

In Pennsylvania, 582 physicians were licensed for the first time in 1965; with 356 other M.D.'s receiving licenses, the state ranked third in total number of licensings during the year.

The new assistant dean for student affairs at the Temple University School of Medicine is **John W. Coles, M.D.,** a native of New Castle, and most recently a resident of Loudonville, Ohio.

A public service award was given to **Robert W. Saunderson, Jr., M.D.,** Elizabethtown, honoring him for his service to the Hospital for Crippled Children, located just outside the community. Mrs. William W. Scranton presented the award in behalf of the "100,000 Pennsylvanians" Committee.

Coleman M. Whitlock, Jr., M.D., formerly of Harrisburg, is the new area medical director for Ames Company, a division of Miles Laboratories. Dr. Whitlock had been chief of plant health services for the Pennsylvania Department of Health.

Luther L. Terry, M.D., Philadelphia, has received the Julius W. Sturmer Memorial Lecture Award of the Rho Chi National Honorary Pharmaceutical Society.

George R. Shore, M.D., Pittsburgh, is the first full-time medical director in the 100-year history of the H. J. Heinz Company.

Leonard J. Quetsch, M.D., has been elected president of the Pennsylvania Heart Association. A thoracic surgeon at Washington Hospital, he will assume the presidency in the fall of 1966. Dr. Quetsch is a past president of the Southwestern Pennsylvania Heart Association, a fellow of the American College of Surgeons, a member of the Hines Surgical Association, and consultant to the Canonsburg and Charleroi-Monessen Hospitals.

Blue Cross Named Agent

On June 1 Capital Blue Cross, with headquarters in Harrisburg, became the agent for Blue Shield in central Pennsylvania, with responsibility for enrollment, subscriber services, changes in membership, and subscription payments in the 18-county area served by the hospitalization plan.

Blue Shield will continue to handle the processing and payment of medical-surgical claims.

Affected by the agreement are the more than 70 percent of Blue Cross subscribers in central Pennsylvania who also belong to Blue Shield.

Paregoric Ruling

Effective July 1, 1966, "No pharmacist shall sell, dispense, distribute, or give away any paregoric as designated by the current official compendium, except pursuant to an oral or written prescription of a duly licensed practitioner; provided, however, that this shall not be construed to include paregoric in combination with non-narcotic ingredients from which, in the opinion of the Secretary of Health, the paregoric cannot be removed with such relative technical simplicity and degree of yield as to create a risk of improper use."

Rules and Regulations,

Department of Health,
Commonwealth of
Pennsylvania.

Hershey Tuition Fees Set

Tuition charges at the Milton S. Hershey Medical Center of The Pennsylvania State University will be among the lowest in the nation's medical schools. Pennsylvania residents will pay $130 per term ($390 per three-term year), and out-of-state students will pay $390 per term ($1170 per year), enrollment preference being given to the former.

Trustees of the university have also established a $130 acceptance fee (nonrefundable, but applicable to the first term's tuition), in addition to a $10 application fee.

The institution, which expects to admit its first class in the fall of 1967, is one of 14 new medical schools now being developed which, on completion, will bring the nation's total to 102.

Hospital News

Pittsburgh's St. Clair Memorial Hospital has joined the growing number of Pennsylvania hospitals with specially trained and equipped cardiac resuscitation teams.

Licensed physicians recently took over the staffiing of emergency service at Nazareth Hospital, Philadelphia, replacing interns and residents.

Temple-Moss-Philco Biomedical Project

In a joint effort aimed at accelerating the development and application of rehabilitation techniques, three Philadelphia organizations are working together in the interests of patients with heart disease, cancer, stroke, and various crippling diseases.

Temple University Health Sciences Center, Moss Rehabilitation Hospital and the Philco Corporation have joined forces in a project which, according to a Moss spokesman, is the first of its kind ever undertaken by industrial engineers and medical research scientists in the United States.

Engineering scientists and other professional specialists from Philco will work side by side with Temple and Moss physicians in clinical and laboratory settings at Moss.

As expressed by Bernard Sandler, M.D., chairman of Temple's Department of Physical Medicine and Rehabilitation, the hope is for a reduction in the time-lag between development of engineering innovations and their practical application in medical situations.

Hershey Contracts Signed

Building contracts totaling $8,172,500 for the first phase of the Medical Sciences Building of the Milton S. Hershey Medical Center were signed on June 10 by officials of the Hershey Trust Company.

The contracts cover the basic sciences wing of the Medical Sciences Building and the outside site work for the entire Medical Center complex. Sealed bids were opened by the architect at a meeting of officials of the Foundation, of The Pennsylvania State University, and of the U. S. Public Health Service.

High Honor—Holding the Officer's Cross of the Order of Merit which he received from the German government is Dr. Maximilian Ehrenstein, professor of biochemistry at the University of Pennsylvania School of Medicine. Dr. Kurt W. Andreae, center, German consul in Philadelphia, made the presentation. Also shown taking part in the presentation is Dr. Gaylord P. Harnwell, president of the University of Pennsylvania.

New Five-Year M.D. Class Matriculates at PSU

On June 22, the fourth class in the Five-Year Cooperative Program of Medicine set its sights on M.D. degrees upon enrolling at The Pennsylvania State University.

In cooperation with the Jefferson Medical College, the university developed the continuous five-year course, to cut three years from the span usually required for earning undergraduate and medical diplomas.

Students under the program are scheduled to qualify for the degree of Bachelor of Science in Medicine at the university, then to devote two years to obtaining the degree of Doctor of Medicine from Jefferson.

Twenty-eight highly qualified young people comprise the new class—twenty-five from Pennsylvania, two from New York State, and one from New Jersey.

Dr. Amsterdam Chairs Einstein Medical Board

Elected to a one-year term as chairman of the medical board of Albert Einstein Medical Center is Gerald H. Amsterdam, M.D., Wyncote. New board members named were Drs. Nathaniel G. Berk, Sidney Beck, and Philip Kimbel, all of Philadelphia.

Einstein's 29-man board coordinates the professional activities of the center's 750-member medical staff with actions of the institution's administration and its board of trustees.

Pascal F. Lucchesi, M.D., executive vice-president and medical director at Einstein, announced the names of the electees.

Golden Nuggets

"I have heard nothing but praise for the way this program of yours was arranged this year [1965] . . . I was particularly impressed with the 'Luncheon with the Experts' idea. I have heard many people say that this went over splendidly."*

Henry L. Bockus, M.D., Philadelphia, Emeritus Professor of Medicine and Gastroenterology, University of Pennsylvania, Division of Graduate Medicine.

*** Similar courses are being prepared for the 1966 TEACHING INSTITUTE to be held October 9-11 in Pittsburgh.**

Postgraduate Courses

DREXEL HILL

Symposium on Blunt Trauma, Delaware County AGP, at Delaware County Memorial Hospital, October 29, 9 A.M.–4 P.M.; 6 hours AAGP. Contact E. D. Arsht, M.D., at the hospital, Lansdowne and Keystone Avenues (19026).

HAZLETON

Continuing Education Program, by The University of Pennsylvania School of Medicine, at Hazleton State General Hospital Nursing Home, Second and Third Streets, Thursdays, through December 8 (course under way). Contact V. J. Kennedy, M.D., at the hospital (18201).

PHILADELPHIA

Microsurgery of the Temporal Bone, Temple University School of Medicine, first week of each month. Contact B. J. Ronis, M.D., Temple University School of Medicine, Broad and Ontario Streets (19140).

Interpretation and Therapy of Cardiac Arrhythmias, Hahnemann Medical College and Hospital, at Marriott Motor Hotel, July 25–29. Contact L. S. Dreifus, M.D., 230 North Broad Street (19102).

Medical Hypnosis for Graduate Physicians, Department of Psychiatry, Graduate Division, School of Medicine, University of Pennsylvania; at the Institute of the Pennsylvania Hospital, Wednesdays, 3–7 P.M., September 28 through February 22; AAGP accreditation; fee, $150. Contact S. E. Pulver, M.D., director, 111 North Forty-ninth Street (19139).

Applied Office Psychiatry for Graduate Physicians, at the Institute of the Pennsylvania Hospital, Wednesdays, 3–7 P.M., September 28 through December 21; AAGP accreditation; fee, $50. Contact Dr. Pulver, as above.

The Elder Patient: Clinical Features and Total Management, Joseph T. Freeman, M.D., chairman, PMS Commission on Chronic Illness and Geriatrics; at Lankenau Hospital, September 14, 21, and 28, 9:30 A.M.-5 P.M.; 18 hours AAGP. Contact Dr. Freeman, 1530 Locust Street (19102).

Seventeenth Hahnemann Symposium, Nutritional Dysfunction, at Sheraton Hotel, in December. Donald Berkowitz, M.D., director.

General Internal Medicine, Hahnemann Medical College and Hospital, Wednesdays, October 5, 1966-March 29, 1967, 1-4 P.M.; 24 hours AAGP. Contact Drs. D. Mason, W. W. Oaks, and S. R. Bender, 230 North Broad Street (19102).

Bronchoesophagology, Drs. Charles M. Norris and Gabriel F. Tucker, Jr., November 28-December 9, 1966, and April 3-14, 1967; fee, $250. Contact Chevalier Jackson Clinic, Temple University Hospital, 3401 North Broad Street (19140).

Renal Failure, Hahnemann Medical College, at Sheraton Hotel, December 12–14, 9 A.M.–5 P.M. daily; 24 hours AAGP. Contact Albert N. Brest, M.D., 230 North Broad Street (19102).

Graduate Course in Medical Hypnosis, University of Pennsylvania Graduate Division, School of Medicine; 4 hours each Thursday afternoon for 20 weeks beginning September 28, at Institute of the Pennsylvania Hospital. Complies with recommendations of AMA's Committee on Hypnosis. Contact S. E. Pulver, M.D., 111 North Forty-ninth Street (19139).

Office Psychiatry, Institute of the Pennsylvania Hospital, 4 hours each Thursday for 12 weeks, beginning September 28. Contact Dr. Pulver, as above.

Annual Course in Postgraduate Gastroenterology, American College of Gastroenterology, at Bellevue Stratford, with a session on instrument techniques at Albert Einstein Medical-Center, Northern Division; course period—October 27–29. For further information, contact the ACG, 33 West Sixtieth Street, New York 10023.

Psychiatry and Clinical Medicine for Nonpsychiatrists, University of Pennsylvania Department of Psychiatry, 2:30 P.M. Wednesdays, for 20 weeks; fee, $75. Contact W. L. Webb, M.D., Hospital of the University of Pennsylvania, Thirty-fourth and Spruce Streets (19104).

• The introduction of antibiotics is credited by two University of Pennsylvania physicians as the outstanding factor in reducing sickness in this century.

Meetings

STATE SOCIETY

AUGUST

Board of Trustees and Councilors—Penn Harris Motor Inn, near Harrisburg, August 10–11.

SEPTEMBER

Council on Public Service—September 10.

OCTOBER

One Hundred Seventeenth Annual Session—Penn Sheraton Hotel, Pittsburgh, October 9-13.

NATIONAL

JULY

Second Seminar on Control Procedures in Drug Production—Hershey Hotel, Hershey, July 17–22. Information, Dr. William L. Blockstein, 190 Pharmacy Building, The University of Wisconsin, Madison 53706.

SEPTEMBER

American Society of Clinical Pathologists—Washington (D. C.) Hilton Hotel, September 16–24 (members only).

Decennial Conference on Cell, Tissue, and Organ Culture—Bedford, September 11–15.

OCTOBER

American College of Gastroenterology—Bellevue Stratford Hotel, Philadelphia, October 23–26.

UNIVERSITY PARK

Fifteenth Annual Health Conference, Pennsylvania Department of Health and PMS, at The Pennsylvania State University, August 7–11; 18 hours AAGP. Contact A. V. Sinkosky, P.O. Box 90, Harrisburg 17120.

• **About This Section:** To be publicized, courses must be one-half day (three hours) or more in length, designed for licensed doctors of medicine, and of interest to physicians in an area of several counties or more. Information must be received by the first day of each month, to appear the following month. Each item will appear no more than four times. Address: Commission on Medical Education, 230 State Street, Harrisburg 17105.

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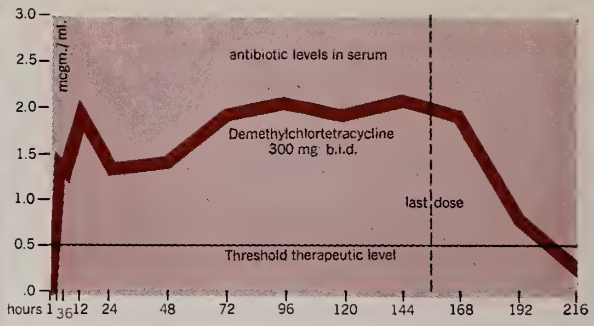

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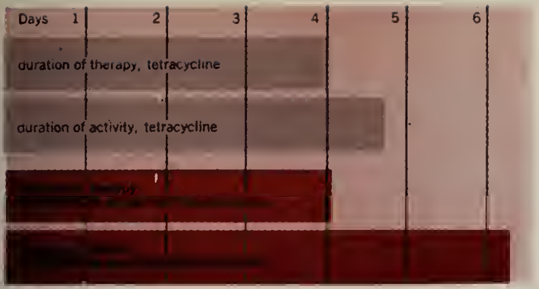

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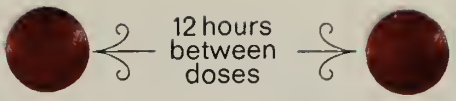

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Deaths

John B. Barnwell, Philadelphia; University of Pennsylvania School of Medicine, 1923; age, 71; died May 4, 1966. Dr. Barnwell was a retired director of research and medical education for the Veterans Administration. At one time he was associated with the University of Michigan School of Medicine, where he developed a tuberculosis unit. He belonged to many medical organizations, including the American Thoracic Society, of which he was a past president. He is survived by two sisters and two brothers.

○ **Maurice V. Brant,** Schellsburg; Medico-Chirurgical College, 1906; age, 85; died April 19, 1966. For 22 years, Dr. Brant was physician to the Loyalhanna Coal and Coke Company, Cairnbrook. In 1956, he received the PMS Fifty-Year Award. He was affiliated with Masonic orders. A brother survives.

○ **Nelson M. Brinkerhoff,** Upper Darby; University of Pennsylvania School of Medicine, 1900; age, 89; died April 20, 1966. Dr. Brinkerhoff is survived by a son and a sister.

Raymond C. Bull, Grand Junction, Colorado (formerly of Bethlehem); Jefferson Medical College, 1909; age, 83; died April 11, 1966. From 1923 until his retirement in 1944, Dr. Bull was director of the Health Center he established at Lehigh University, prior to which he had served as surgeon at Virginia Military Institute, at Walter Reed Hospital, and in the Surgeon General's office. He was a member of the AMA and the American Student Health Association, and had served as president of the Bethlehem Medical Club. There are no immediate survivors.

○ **William H. Crawford,** Upper Darby; University of Pennsylvania School of Medicine, 1925; age, 65; died March 31, 1966. Chief medical inspector of his community's school system, Dr. Crawford was a staff member at Delaware County, Lankenau, and Bryn Mawr hospitals, and had formerly been on the staff of the old Lying-In Hospital. He was a Fellow of the American Academy of Pediatrics, and a Diplomate of the Board of Medical Examiners and of the American Board of Pediatrics. Surviving are his wife, a daughter, and two sons, one of whom is John J. Crawford, M.D.

○ **Leroy W. Frederick,** Reading; University of Pennsylvania School of Medicine, 1917; age, 71; died April 16, 1966. Dr. Frederick was a past president of the former Reading Medical Society. His wife, a son, and a sister survive.

○ **David A. Gold,** Philadelphia; Jefferson Medical College, 1942; age, 49; died April 22, 1966. Formerly chief of staff at Greenes Eye Hospital, San Francisco, Dr. Gold was on the staffs of Rolling Hill, Oxford, and Wills Eye hospitals, and of the Einstein Medical Center. He belonged to the Pennsylvania Ophthalmology and Otolaryngology Society and was a Fellow of the American Academy of Ophthalmology and Otolaryngology. His wife, his parents, a daughter, and two sons are among his survivors.

Louis O. Heiland, Collegeville; Jefferson Medical College, 1908; age, 93; died May 13, 1966. Further information is not available.

Earl R. Knox, Kansas City, Missouri, formerly of Claysville; Jefferson Medical College, 1931; age, 61; died March 21, 1966. Surviving are his wife and three children.

○ **Edward B. Krumbhaar,** Philadelphia; University of Pennsylvania School of Medicine, 1908; age, 84; died March 16, 1966. Dr. Krumbhaar was a writer, medical historian, and educator, and had been professor and head of the department of pathology at his alma mater. Founder of the American Association for the History of Medicine, he had been president of the College of Physicians of Philadelphia from 1940 to 1943, and had also served at other times as president of a number of other medical societies. Twice elected to the board of governors of Harvard University, he was an honorary Fellow of the Royal Society of Medicine in London. His wife and two sons survive.

○ **John T. Lafferty,** Woodville; Eclectic Medical College of Indianapolis, 1909; age, 82; died April 13, 1966. Among Dr. Lafferty's survivors are his wife and two sons.

John M. Marshall, Kampala, Uganda, on leave from the University of Pennsylvania School of Medicine, where he was a professor of anatomy; University of Illinois College of Medicine, Chicago, 1950; age, 46; killed in an automobile accident on April 29. Since July, 1965, Dr. Marshall had been teaching at Makerere Medical College, Kampala, under a Guggenheim Fellowship. He was internationally known for his protein and cytochemical research, had received many awards and honors, and belonged to numerous professional organizations. His home is in Philadelphia. Survivors include his wife, his mother, three daughters, and three sons.

○ **Lorain A. McAndrew,** Vandling; Georgetown University School of Medicine, 1934; age, 61; died in mid-April, 1966. Dr. McAndrew was a staff member at St. Joseph's and General hospitals, Carbondale. No information on survivors has become available.

○ **Charles L. Mellon,** Pittsburgh; Howard University College of Medicine, 1908; age, 81; died April 17, 1966. Dr. Mellon belonged to the Gateway Medical Society, Omega Psi Phi honorary medical fraternity, the Howard Club, and the Elks. Surviving are a daughter, three sons (one of whom is Charles L., Jr., M.D.), a sister, and four brothers.

○ **Joseph W. Milliron,** Safford, Arizona, formerly of Kittanning; University of Pittsburgh School of Medicine, 1929; age, 60; died March 30, 1966. Dr. Milliron was a former staff member at Armstrong County Memorial Hospital. There are no known survivors.

○ **John Peoples,** Pittsburgh; Medico-Chirurgical College, 1906; age, 89; date of death unknown. Dr. Peoples received the PMS Fifty-Year Award in 1956. From 1907 to 1920, he served as a medical missionary at Tarsus, Turkey. He is survived by a son, Samuel S. Peoples, M.D.

○ **Henry A. Pierce,** Lykens; McGill University School of Medicine, 1935; age, 56; died April 15, 1966. Dr. Pierce was a member of the Academy of General Medicine. Surviving are his wife, his mother, and a daughter.

○ **Samuel R. Skillern,** Drexel Hill; Medico-Chirurgical College, 1913; age, 81; died April 18, 1966. Dr. Skillern had been an associate professor of laryngology at the University of Pennsylvania Graduate School of Medicine and a staff member of the Graduate Hospital. A past president of the Philadelphia Laryngological Society, he was a member of the Philadelphia County College of Physicians, the Pennsylvania College of Physicians, and other medical groups. His wife and three daughters survive.

○ **Bernard Smiley,** Scranton; St. Louis University School of Medicine, 1934; age, 59; died April 30, 1966. Dr. Smiley was a staff member at several hospitals, and belonged to numerous professional, civic, and fraternal organizations. Surviving are his wife, his mother, a daughter, and a son.

○ **Grover C. Todd,** Pittsburgh; University of Louisville School of Medicine, 1915; age, 81; died April 30, 1966. Dr. Todd's wife, a daughter, and a son survive.

Walter H. Shealy, Sharpsburg, Maryland, formerly of Washington County; University of Maryland School of Medicine, 1923; age, 69; died April 15, 1966. Dr. Shealy was a former president of the Washington County Medical Society and a member of several other professional organizations. He was a past president of the Washington County Historical Society. Among his survivors are a daughter, a son, and a brother.

○ **Floyd W. Uhler,** Easton; Temple University School of Medicine, 1919; age, 74; died April 24, 1966. Dr. Uhler's 45-year practice was conducted in Easton, Allentown, and Pen Argyl; in the latter community, he was a director of the First National Bank. He belonged to Masonic orders. His wife and a sister are among his survivors.

George A. Wintill, Pittsburgh; University of Pittsburgh School of Medicine; age, 45; died March 26, 1966. Dr. Wintill, until five years ago engaged in private practice in Brookline, had been doing research at his alma mater. His wife, four sisters, and three brothers survive.

Note: Due to a printer's error, the late Joseph J. Leskin, M.D., Shenandoah, was listed in the June issue as having been a Trustee and Councilor for the Fourth District for eleven years. Dr. Leskin's tenure covered about two and one-half years.

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Artificial Kidney: What It Is and How It Works, booklet available from the Division of Chronic Diseases, Public Health Service, Washington, D.C. 20201 (PHS publication No. 1409).

- **Films:** *Finding The Hidden Diabetic,* includes both a film by the Upjohn Company and a 14 page reference brochure available from Diabetes Detection Program, Room 914, 342 Madison Avenue, New York, New York 10017.

- **Magazines:** *Appalachian Review,* a quarterly magazine sponsored by the West Virginia Center for Appalachian Studies and Development, available on a yearly subscription rate of $6.00. Information may be obtained by writing to the Editor, 307 Armstrong Hall, West Virginia University, Morgantown, West Virginia 26506.

- **Medicare Publications:** Presently or soon available at local Social Security Offices are: *Conditions of Participation for Hospitals* (HIM-1); *Conditions of Participation for Home Health Agencies* (HIM-2); *Conditions of Participation for Extended Care Facilities* (HIM-3); *Conditions for Coverage of Services of Independent Laboratories* (HIM-4); *Principles of Reimbursement for Provider Costs* (HIM-5); *Questions and Answers About Psychiatric and Tuberculosis Hospitals* (OASI-879); *Information for Providers of Services* (OASI-1965-11).

Also available through the Social Security Administration is the reference "Handbook" for medicare beneficiaries, and a reference guide on medicare for physicians.

Philadelphia, Camden Children to be Studied in HEW Survey

The Public Health Service's Health Examination Survey, authorized by Congress in 1956, will visit the Philadelphia area and parts of Camden, New Jersey, to examine a sample of the teen-aged population (ages twelve through seventeen years) in a four-week period beginning August 29.

This will be part of a series of examinations of a nationwide health survey of youngsters.

About 200 youths to be examined in the Philadelphia-Camden area and parts of Bucks County, Pennsylvania, will be chosen by a scientific sampling process from the entire twelve-through-seventeen-year population.

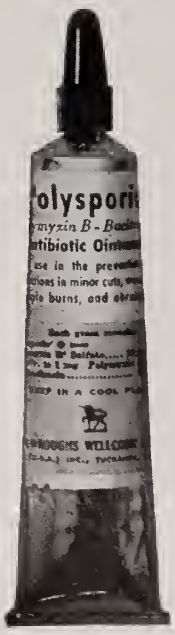
Examinations will be given in the Health Survey's mobile examination center, which will be brought to the Philadelphia area in late August and set up in a convenient location.

Purpose of the examination is to collect on a uniform basis statistical information on various aspects of the health of twelve-through-seventeen-year-olds and to obtain data on certain physical and physiological measurements relating to growth and development in this age group.

The process will include a special examination by a physician of the eyes, ears, nose and throat, heart and neuromuscular systems; a dental examination by a dentist; a test of visual acuity and color vision; recordings of blood pressure; biological and biochemical tests of a blood sample; an audiometric test for hearing performed in a soundproofed room; an X-ray of the hand and wrist for bone age; and X-ray of the chest for cardiovascular and pulmonary abnormalities; a 10-lead electrocardiogram and a phonocardiogram of the heart; a timed vital capacity using a wedge spirometer; an exercise tolerance test under a measured workload using a treadmill; a grip-strength test; recordings of height, weight and various other measurements of growth and development; and measurements of verbal, perceptual and social skills by a psychologist.

The Health Examination Survey is designed to collect data primarily on the health aspects of growth and development. The survey is not intended as a screening procedure; referral for diagnosis is not made. The fact that the examination is not complete and is not a substitute for a visit to one's own physician and dentist is stressed with the parents of each youth examined. No part of the results of the examination except for a card stating the blood type will be disclosed to the youth or his parents. A report of relevant findings will be sent to the youngster's physician and dentist when the parents request that this be done.

The examining physicians will be senior residents or fellows in pediatrics working temporarily with the Public Health Service. Other members of the examining team will include a nurse, a dentist, two psychologists, and X-ray and other technicians regularly on the PHS staff.



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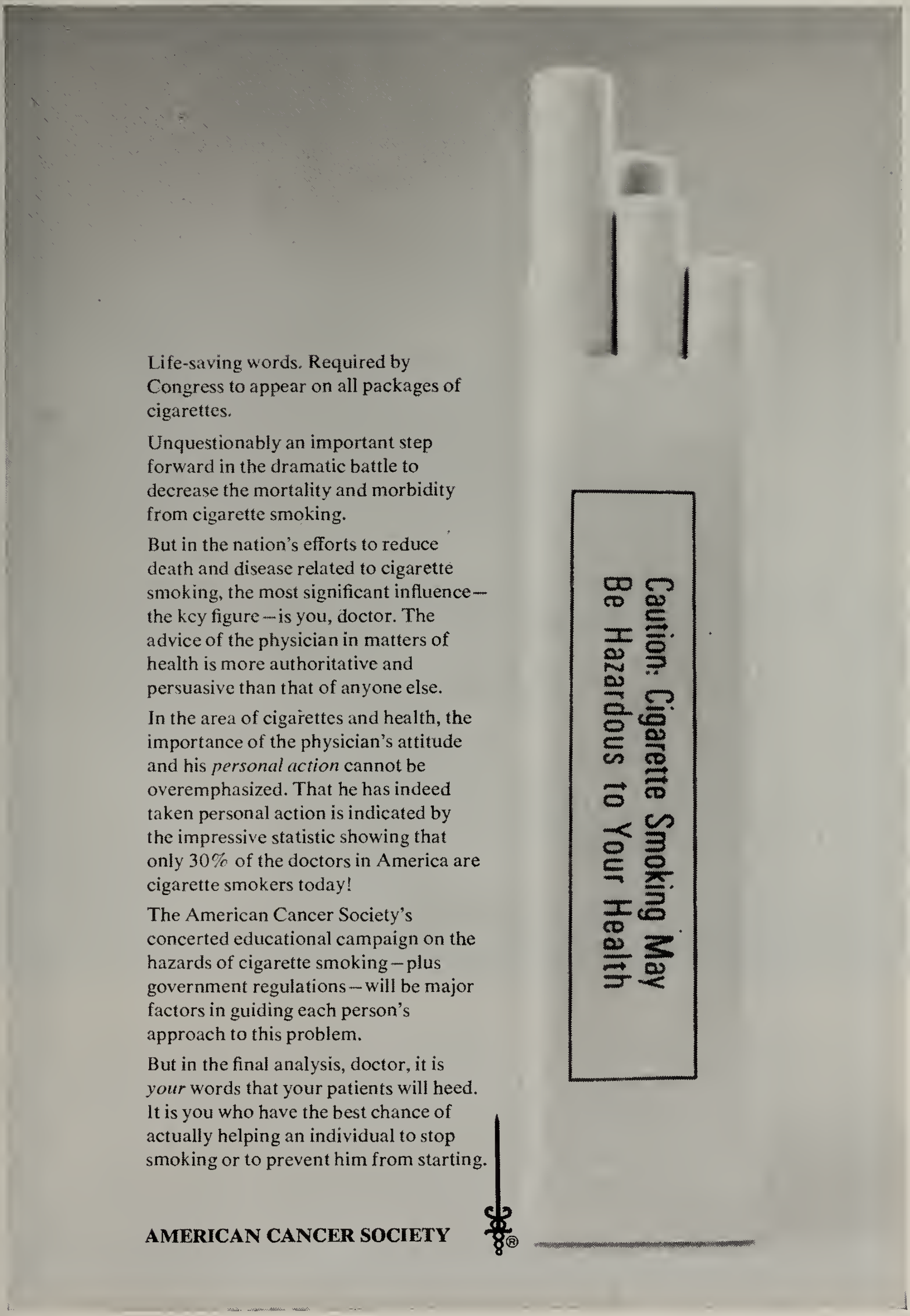

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In the area of cigarettes and health, the importance of the physician's attitude and his *personal action* cannot be overemphasized. That he has indeed taken personal action is indicated by the impressive statistic showing that only 30% of the doctors in America are cigarette smokers today!

The American Cancer Society's concerted educational campaign on the hazards of cigarette smoking—plus government regulations—will be major factors in guiding each person's approach to this problem.

But in the final analysis, doctor, it is *your* words that your patients will heed. It is you who have the best chance of actually helping an individual to stop smoking or to prevent him from starting.

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PENNSYLVANIA CANCER FORUM PAGE—presented cooperatively by the Council on Scientific Advancement of the Pennsylvania Medical Society, the Philadelphia and Pennsylvania Divisions of the American Cancer Society, and the Cancer Control Section, Pennsylvania Department of Health.

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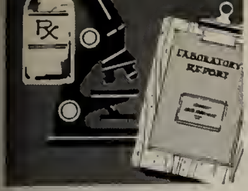

ORIGINAL PAPERS

Extensive Jejuno-Ileal Resection

Despite many postoperative complications, the patient continues to thrive and keep active more than six years after her radical surgery

H. PHELPS POTTER, JR., M.D.
Philadelphia, Pennsylvania
DAVID R. BASSETT, M.D.
Honolulu, Hawaii

Long-term survival following extensive small bowel resection has been reported frequently during the past sixty years, and the malabsorption syndrome characterizing such patients has been reviewed.[1-6] Recent reports emphasize the length of small intestine remaining, rather than the amount resected, and indicate that malabsorption may be further increased by disease in the residual small bowel, an associated blind loop, intestinal hypermotility, and absence of the ileocecal valve and right colon.[2-4] Patients possessing less than 40 cm. of mesenteric small bowel after massive resection usually die within a year of inanition,[2] although prolonged survival of such patients has been reported.[2, 5, 6, 7, 26]

Our patient is a young woman who is leading a busy life six years after resection of all but 30 cm. of the jejunum and ileum. The course since surgery has been complicated by intestinal obstruction, malabsorption, pericarditis, arthritis, cholecystitis, and pancreatitis. There also has been an apparent increase in the residual small bowel length.

An obese twenty-two-year-old woman suffered a sudden attack of abdominal pain, melena, and shock on March 10, 1960. Emergency laparotomy showed a volvulus involving most of the mesenteric small intestine; 350 cm. of gangrenous jejunum and ileum were resected.

Surgery was followed by persistent vomiting. Because of a weight loss from 180 to 110 pounds within three months, the patient was transferred to the Hospital of the University of Pennsylvania on May 30, 1960.

At a second laparotomy on June 1, 1960, an obstruction at the jejuno-ileal anastomosis, and dilatation of the proximal small intestine were found. An additional 8 cm. of small bowel was resected, and a new end-to-end jejuno-ileal anastomosis was constructed, after which the entire remaining mesenteric small bowel could easily be inspected; it was estimated to be 30 cm. long, composed equally of jejunum and ileum. The stomach, duodenum, ileocecal valve, and colon were intact.

At hospital discharge on June 17, 1960, food intake was excessive, and eight to ten liquid stools were passed daily.

The patient was admitted to the Clinical Research Center in the Hospital of the University of Pennsylvania on December 27, 1960, for study of abnormalities in intestinal absorption. Despite a voracious appetite, body weight had fallen to 81 pounds; other problems were weakness, loss of head hair, failure of body hair growth, amenorrhea, and easy bruising.

Physical examination showed evidence of weight loss, follicular hyperkeratosis, bilateral ankle edema, and abdominal distention with feces and gas. There were six to eight pale, mushy, floating stools daily, totaling approximately 2,000 gm. in weight and characterized by a slight sour odor, many meat and vegetable fibers, and an oil scum. The stool pH varied between 5.2 and 5.8.

Table I shows intestinal absorption studies performed during this admission. Fecal loss of I^{131} labelled triolein decreased from 84 percent to 48 percent after eight days of oral prednisone therapy (40 mg. daily), but there was no associated increase in body weight nor decrease in stool fat (determined by the van de Kamer chemical technique). Maximal concentration of free acid in the gastric juice after gruel meal stimulation was 64 mEq./L. The basal metabolic rate was —9 percent. Stool bacteriology showed no enteric pathogens.

A barium meal x-ray study showed slight dilatation of the duodenum and jejunum, and coarsening of the small bowel mucosal pattern. The combined jejunal and ileal length estimated from these x-ray films was 45 cm. The stomach emptied normally, and barium reached the caecum in fifteen minutes. There was no holdup of barium at the jejuno-ileal anastomosis,

■ *Dr. Potter is a consultant at the Wilmington, Delaware, Veterans Administration Hospital. Dr. Bassett, formerly associated with Dr. Potter on the case described herewith, is now director of the Hawaii Cardiovascular Study, and is affiliated with Queen's Hospital, Honolulu, as assistant chief of medicine (in charge of teaching). Each of the authors belongs to a number of national medical and specialty organizations.*

although slight narrowing was noted at this point. Barium and other markers appeared in the stool twelve hours after ingestion. A barium enema study showed a long, dilated colon.

From January 20 to May 5, 1961, oral prednisone or prednisolone, 10-20 mg. daily, was added to a regimen of bland diet, frequent snacks, restricted activity, vitamin and mineral supplements, and tincture of belladonna. During this interval the previous progressive weight loss ceased.

Substernal pain and fever began on April 23, 1961, after thirteen weeks of steroid therapy. Examination showed a pericardial friction rub, cardiomegaly, and electrocardiographic changes of pericarditis. A liver biopsy showed pericholangitis. Exhaustive studies in the Hospital of the University of Pennsylvania uncovered no cause for the pericarditis; but tuberculosis could not be ruled out, and treatment with streptomycin, isoniazid, and paraaminosalicylic acid was begun. Chest pain subsided, but because of drug reactions, antituberculous medications had to be discontinued within three months. There has been no subsequent evidence of tuberculosis or pericarditis.

Left subacromial bursitis and intermittent painful swelling in the elbows, knees, wrists, metacarpophalangeal, and interphalangeal joints began in September, 1961. A latex fixation test and LE preparations were negative. The serum uric acid was 2.6 mg percent. The clinical impression was early rheumatoid arthritis.

Intramuscular corticotropin in gelatin, 80 units three times weekly, was started in November, 1961; during eight weeks of this therapy, energy improved, weight increased from 82 to 91 pounds, and joint symptoms disappeared. Chest pain returned on February 5, 1962, and corticotropin therapy was stopped. Studies in the Woman's Medical College Hospital showed no evidence of pericarditis. A severe bout of chest and right upper quadrant pain occurred on March 5, 1962; operation revealed an acutely inflamed gallbladder containing ten small stones, and acute edematous pancreatitis.

Common duct exploration and T-tube cholangiogram showed no stones. Histology of the gallbladder showed acute and chronic inflammation; the chemical composition of the gallstones was not determined. Serum elevations of bilirubin, alkaline phosphatase, oxalacetic transaminase, and amylase returned to normal following surgery. At this operation the remaining jejunum and ileum were carefully inspected, were found to be dilated and thickened, and were estimated to total 70 cm. in combined length.

TABLE I

Intestinal absorption studies following massive jejuno-ileal resection in March, 1960

Factor	Normal Values	Jan., 1961	May-Aug., 1963	July, 1965
Body Weight	**180 pounds before resection height, 59 in.**	**81**	**107**	**118**
Serum carotene	**60-180 mg. per 100 ml.**	**5**	**20**	**110**
Serum cholesterol	**120-250 mg. per 100 ml.**	**78**	**95**	**210**
I^{131} triolein fecal loss	<7%	**84 %**	**9 %**	. .
Fecal fat excretion (van de Kamer)	<5%	**90 %**	**18 %**	. .
D-xylose test (25g. oral dose, 5 hr. urine collection)	>4.2 gm.	**2.0**	**2.5**	**1.9**
Hemoglobin	**12.0-16.0 gm. per 100 ml.**	**10.1**	**13.5**	**13.2**
Vitamin B_{12} (Schilling test)	**>5.5% (1961)** **>7.0% (1963)**	**2.3%**	**5.0%**	. .
Serum calcium	**8.6-10.2 mg. per 100 ml.**	**9.6**	**7.8**	**8.8**
Serum magnesium	**1.3-3.1 mg. per 100 ml.**	. .	**2.3**	**2.6**

Following the cholecystectomy, weight and energy increased and hair growth became normal. In January, 1963, menstruation returned and body weight reached 107 pounds.

Fat absorption was closer to normal in May, 1963, than it had been in January, 1961 (Table I). Leg cramps and hypocalcemia (7.8 mg. per 100 ml.) occurring in August, 1963, responded promptly to parenteral vitamin D and increased oral calcium. In July, 1965, a D. & C. was performed because of menometrorrhagia; the currettings showed a normal endometrium in the proliferative phase. Energy was excellent, despite a full work and social schedule, and body weight had increased to 118 pounds. Serum carotene and cholesterol levels were normal in July, 1965, although d-xylose absorption was still reduced. In April, 1966, the patient experienced a bout of phlebitis in the right leg, but otherwise she felt well, was working full time, and weighed 118 pounds.

Discussion

Patients retaining the duodenum and 100 cm. or more or normal mesenteric small bowel after massive resections usually have been able to maintain their body weight and lead active lives.[2] This is in accord with Borgström's observations in healthy human subjects, that the digestion and absorption of fat, carbohydrate, and protein begin in the duodenum and are largely completed in the proximal 100 cm. of jejunum.[8] If the total length of jejunum and ileum remaining after massive resection is less than 40 cm., inanition and death within one year are the usual outcome;[2] the few exceptions have been reviewed.[2, 5, 6] Anderson recently reported a young woman living and well seven years postresection for volvulus, with only six inches of small intestine.[26]

The following favorable factors may have contributed to our patient's six-year survival after a resection which left, initially, only 30 cm. of jejunum and ileum: (1) the residual small bowel was not diseased and may have hypertrophied (see below); (2) the ileocecal valve and colon were intact; (3) there were no intestinal blind loops; (4) small intestinal hypermotility could be slowed with anticholinergic drugs; (5) gastric secretory function and emptying were normal; (6) a seventy-pound obesity present at the time of resection provided a calorie reserve, and as body weight fell from 180 to 80 pounds, calorie requirements decreased; (7) a ravenous appetite has allowed an excessive food intake.

Helpful Therapy

Therapeutic measures that seem to have benefited our patient were: dosage with vitamin and mineral supplements, frequent interval feedings, and restricted activity during the first two years postresection. During an eight day trial of prednisone, I^{131} triolein absorption improved, but weight gain and diminished steatorrhea could not be demonstrated. Subsequent administration of prednisone, prednisolone, and corticotropin for longer periods was associated with gains of weight and energy, but these drugs were abandoned because of complications (pericarditis and cholecystitis-pancreatitis), thought to be related to them.

Improved absorption following adrenocorticosteroid therapy in patients with short intestines has been reported.[4] During the first year postresection, paregoric decreased stool frequency. Intramuscular propantheline bromide (15 mg.) slowed barium meal transit through the small bowel and encouraged the use of belladonna tincture, 30 minutes before the main meals.

Substitution of polyunsaturated fat for saturated triglycerides did not decrease steatorrhea, as reported in patients with celiac disease and cystic fibrosis,[9] but it did relieve abdominal distress associated with a similar intake of saturated fat. Reduced milk intake decreased abdominal bloating. Pancreatic enzyme therapy, low fat intake (40 gm. per day), nocturnal feedings, pureed meals, and anabolic agents did not help. A fat intake of medium-chain-length triglycerides, recommended for various types of steatorrhea, was not evaluated in our patient.[5, 9, 10]

The hypocalcemia and muscle cramping occurring in our patient three years after resection were relieved with parenteral vitamin D and increased oral calcium. Tetany, thin bones, hypocalcemia, and a negative calcium balance have been reported in other patients with short small intestines.[2, 3, 11, 12, 13] Hypocalcemia has responded in some patients during correction of magnesium deficits alone.[11-13] Our patient had normal serum magnesiums (Table I), but a magnesium balance study was not done.

Following massive small bowel resection in man and experimental animals, dilatation and mural thickening of the residual small intestine may or may not occur.[2, 11, 14, 19] Mural thickening, when present, involves the mucosa and the muscular coats.[2] Porus found no evidence of villus hypertrophy, but he did find changes suggesting mucosal cell hyperplasia in the residual intestine of two patients, following massive resection.[25]

The presence or absence of partial obstruction at the intestinal anastomosis may determine in part whether or not dilatation and thickening occur.[15] Following 80-85 percent small bowel resection in the dog, construction of a distal antiperistaltic segment or a mechanical impediment to intestinal flow is associated with proximal small bowel dilatation, prolonged transit of a barium meal, and improved absorption of water, fat, and nitrogen.[16, 17] A reversed small bowel segment has been used with apparent success in one patient, following massive resection.[18]

Obstruction at the intestinal anastomosis in our patient induced marked proximal dilatation; after this was repaired, the dilatation partially subsided, and small bowel transit became extremely rapid (15 minutes to the cecum). Holdup of barium at the anastomosis site could not be demonstrated, although slight narrowing was noted at this point. Inspection and palpation of the small bowel at cholecystectomy, two years after the initial resection, showed dilatation and mural thickening most marked proximal to the anastomosis site.

In some patients, small bowel lengthening after massive resection has not occurred;[2, 14, 26] but lengthening seems a possibility in our patient and in four other adult patients previously reported.[4, 12, 19, 21] Our patient's combined ileal and jejunal length was judged to be 30 cm. after the anastomosis repair, but a length of 70 cm. was estimated at cholecystectomy 21 months later. One of the authors (H.P.P.) was present at both laparotomies; surgery exposed the entire small bowel on each occasion; the length was estimated, but not actually measured with a tape.

When Kogan's Case No. 1 was x-rayed four years after a massive resection, the remaining jejunum was "longer than the 18 inches" left at surgery.[4]

Jordan's Case No. 1 had 35 cm. of jejunum remaining after a massive resection; at autopsy two years later, the jejunum was dilated and thickened, and measured 60 cm. in length.[19]

Opie's patient was thought to have 20 cm. of jejunum left after surgery, but a length of 200 cm. was estimated by x-ray seven months later.[12]

Bothe described a patient who had 21 cm. of jejunum and ileum remaining after an extensive resection; more than a meter of small bowel was estimated from a barium meal study done four years later,[21] and at autopsy eight years postresection, the remaining small bowel measured 670 cm.[22] Since only a 120 cm. section of small intestine was received by the pathologist at the time of surgery,[22] it seems likely that more than 21 cm. of jejunum and ileum remained in the patient.

It is frequently not clear whether small bowel "lengthening" after massive resection represents error in measurement, elongation due to decreased tonus, or actual longitudinal growth. It is clear that the length of residual small intestine estimated by the surgeon immediately after a massive resection may be considerably less than that found on follow-up examinations months or years later.

In the dog, resections of 40-85 percent of the small bowel are followed by little or no increase in length.[2, 15, 20]

Whether the pericarditis, arthritis, cholecystitis, and pancreatitis in our patient were causally related to the short intestine, or were merely coincidental, is not known. There were no symptoms of heart, joint, or hepatobiliary disease before the resection, and an intravenous cholangiogram done two months postresection (May, 1960), showed a normal gallbladder and common bile duct. Tissues removed at surgery did not indicate a systemic disease that might account for the multiple difficulties.

Pericardial effusion complicating pancreatitis has been reported,[23] but this possibility was not pursued when our patient showed evidence of pericardial inflammation. Jordan's Case No. 2 presented a clinical picture of pericarditis five months after a massive small bowel resection; this was followed six weeks later by acute cholecystitis in an acalculous gallbladder; postmortem examination two years after these episodes showed early biliary cirrhosis and a small fibrotic atrophic pancreas.[19]

Patients with a short intestine are said to be prone to infection.[4] If this predisposition existed in our patient, it may have been enhanced by the prednisolone and corticotropin therapy preceding the episodes of pericarditis and cholecystitis-pancreatitis, respectively. Duodenal and jejunal bacterial overgrowth was considered a possibility in our patient, because of the short distance to the ileocecal valve; attempts to obtain small bowel content for culture were unsuccessful.

Pancreatic exocrine deficiency and pancreatic fibrosis with atrophy have been described following massive small bowel resection.[2, 4, 12, 19] Malnutrition, and secretin deficiency, are cited as possible causes.[4, 12] Our patient's pancreatitis probably was related to the acute cholecystitis; protein malnutrition and steroid therapy,[24] however, are other possible etiologic factors which should be taken into consideration.

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Lymphatic Dynamics

The lymphatic system is the third component of the vascular system.

The more primitive paralymphatic system includes potential tissue spaces and planes, as well as the pleural, peritoneal, and pericardial cavities.

These two systems intercommunicate, and both drain into the veins through many lymphatovenous connections.

The lymphatic system helps maintain body fluid balance. For example, increased venous pressure such as occurs in heart failure or cirrhosis of the liver will increase lymph flow and cause accumulation of tissue fluids within the lymphatic and paralymphatic systems, presenting as edema.

If lymphatic vessels are obstructed, tissue fluids escape through lymphatovenous communications or through paralymphatic pathways.

The lymphatics also provide a route for the transport and dissemination of cancer cells, the extent of cancer spread depending greatly on the pattern of collateral circulation within the lymphatic system.

Sidney Wallace, M.D.,
Albert Einstein Medical Center
Symposium on Vascular Disease.

Plicate Inferior Vena Cava To Prevent Lung Embolism

As an alternative to ligation of the vena cava, plication of the inferior vena cava was first used more than five years ago in selected patients, to prevent pulmonary embolism. Subsequently, it has been performed in more than forty patients.

Postoperative complications have been infrequent, and no pulmonary embolisms occurred. One patient died from unknown causes seven days after operation (a cavogram two days earlier had shown patency of the plicated cava). Two other patients developed extensive pedal edema. Cavograms of twelve patients a few weeks postoperatively showed patent cavae in ten and thrombosed cavae in two.

One of the forty patients had a proven pulmonary embolus eight months after operation, expiring several days later; at autopsy, a thrombus was found in an ovarian vein entering the cava proximal to the plication site.

Two other patients had moderate edema, controlled with elastic support. The remaining patients had been free from pulmonary emboli and/or severe venous insufficiency. Five cavograms done 22-34 months after operation showed patent plicated cavae in all patients.

If ovarian veins are diseased, cava plication should be placed proximal to their site of entry, or the ovarian vein should be ligated separately.

Frank Cole Spencer, M.D.,
Albert Einstein Medical Center
Symposium on Vascular Disease.

A Clinicopathological Conference

Sudden Paresis in an Alcoholic

Case Report

The patient, first admitted to the Veterans Administration Hospital February-July, 1960, was a thirty-three-year-old unemployed electric welder. His symptoms included fever, cough productive of purulent sputum, and mild confusion of one week's duration. He gave a history of heavy alcoholic intake for the previous ten years, poor food intake for six months, and numbness of the feet and weakness of the legs for one month. There was no family history of neurologic disease. Physical examination revealed a temperature of 100° F., pulse, 120, respiration, 22, and blood pressure, 135/65.

The patient was acutely ill and had mild confusion. There were scattered rhonchi and rales over the entire left lung posteriorly, but percussion, fremitus, and breath sounds were normal. The heart was not enlarged, and there were no murmurs or gallops. The liver and spleen were not palpable. Below the knees there was decreased sensation to pain, touch, temperature, and vibration, and absent ankle and knee reflexes. Due to weakness of the proximal muscles of the legs, the patient was unable to walk. Tests of cranial nerves, pupils, fundi, cerebellum, and upper extremities were normal.

The white blood count (WBC) was 5,500 with 10 bands, 65 polyps, and 25 lymphs. Chest x-ray showed extensive pneumonia in the entire left lung field. Hemoglobin, urinalysis, blood sugar, blood urea nitrogen (BUN), electrolytes, alkaline phosphatase (alk. phos.), and cephalin flocculation were normal; total protein was 5.0 gm. with 3.4 gm. albumin. Spinal fluid was under normal pressure, and had normal protein and no cells. Sputum culture showed heavy growth of coagulase positive Staphylococcus.

The patient was treated with penicillin, chloramphenicol, and erythromycin. Over a period of three weeks the patient's condition gradually improved; sensorium returned to normal, fever abated, and lung infiltrate disappeared. The patient was then transferred to the physiotherapy department, where he remained for five months. At time of discharge, muscle strength and all sensation were normal and there were no abnormal physical findings.

Second Admission

Immediately after hospital discharge, the patient resumed his heavy alcoholic intake, and numbness recurred in his feet, and weakness in his legs. There were no other symptoms. He was readmitted on November 30, 1960. On physical examination he was well, oriented, alert, and cooperative. Skin was normal. Pupils, fundi, lungs, and heart were normal. Liver and spleen were not felt. Testes were not atrophic. Again noted were weakness of the proximal leg muscles, absent knee and ankle reflexes, absent vibratory sense below the knees, and decreased pain, touch, and temperature sensation in the feet. Hemoglobin, urinalysis, chest x-ray, and skull x-ray were normal. He again received physiotherapy and normal diet, but at maximum improvement he still had the absent reflexes and some dimunition of pain, touch, and vibratory sense below the knees. On March 15, 1961, he was discharged.

Third Admission

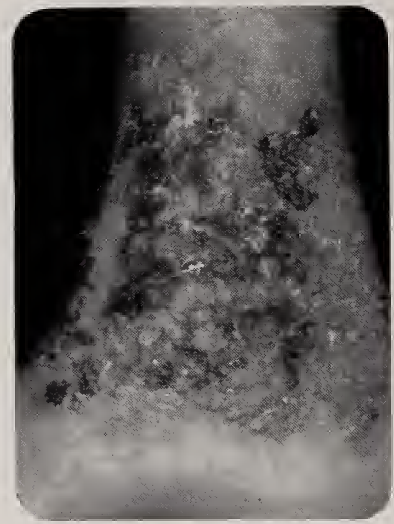
He remained in a Veterans Administration domiciliary home until April, 1963. Apparently he had done well at home, running an elevator. In May, 1963, he resumed drinking large amounts of alcohol, and noted some recurrent weakness of his legs. On the evening of admission (September 16, 1963), while walking in the street, he suddenly became lightheaded and weak, and fell to the ground. Apparently due to weakness of the legs, he was unable to arise. At another hospital, a laceration of the right eyebrow was repaired, after which he was sent to the Veterans Administration Hospital. He had no unconsciousness, headache, vomiting, double vision, fever, weakness of arms, or seizures. Due to the patient's confusion, the review of systems was difficult to interpret, but apparently the only positive finding was a chronic cough productive of small amounts of white phlegm. There was no melena or hematemesis. His temperature was 99° F, pulse, 100 and regular, respiration, 20, blood pressure, 100/60.

He was disoriented and easily confused, but did not confabulate. The laceration of the forehead was the only evidence of injury. The skin was normal, with no spiders. Pupils and fundi were normal, and lungs were clear. The heart was not enlarged; sounds were normal; there was a Grade II ejection murmur along the left sternal border, but no gallops were heard. A firm, nontender liver edge was felt 5.0 cm. below the costal margin; no other abdominal organs or masses were felt. The testes were normal. There was no cyanosis, clubbing, edema, or deformity of extremities. All pulses were normal.

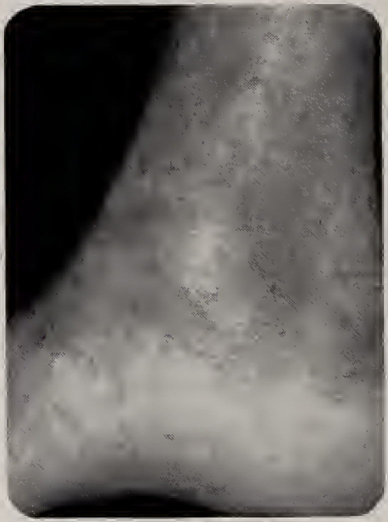
Neurologic examination revealed no hallucinations, but the patient was very tremulous. There was definite dysarthria and slight "disconjugation" of extraocular movements, but no nystagmus. Other cranial nerves were intact. The patient could not stand, due to weakness of his legs; on specific testing, this appeared to involve all the muscles of the legs symmetrically. Cerebellar tests were not done. Reflexes and strength in the arms were intact. Knee and ankle reflexes were absent, and no Babinski response was elicited. Pain, vibration, and touch were decreased below the knees.

• *This conference took place at Presbyterian-University Hospital, Pittsburgh. Participants included, from the University of Pittsburgh School of Medicine:* Clinician, *Lowell Lubic, M.D., assistant professor of neurology;* pathologist, *H. Richard Hellstrom, M.D., clinical assistant professor of pathology, and* moderator, *Jack Myers, M.D., professor and chairman of the department of medicine.* Editors *were Drs. Robert S. Totten and Campbell Moses, associate professors in the School of Medicine.*

eczema: scourge of childhood



R. R., Age 11—Before treatment— atopic eczema of long standing



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Laboratory Data

Admission hemoglobin (Hgb.), 11.3 gm., and hematocrit (Hct.), 38 percent. September 11, 1963: Hgb., 8.0 gm., Hct. 24 percent with 6 percent reticulocyte count. September 25, 1963: Hgb., 9.2 gm., and Hct., 27 percent. WBC on admission, 5,000, 63 polys, 37 lymphs. September 11, 1963: WBC, 12,000 with 22 bands, 51 polys, and 27 lymphs. Urinalysis: specific gravity 1.020, trace of protein, negative reduction, no cells (but rare granular cast present). BUN, 17 mgm. percent, fasting blood sugar (FBS), 117 mgm. percent, cholesterol, 236 mgm. percent, and bilirubin, 2.2 mgm. total and 1.7 mgm. direct. Alk. Phos., 17 King-Armstrong units. Serum glutamic oxaloacetic transaminase (SGOT), 420 units. Sodium, 134 mEq./L, chlorine, 96 mEq./L, potassium, 4.7 mEq./L, carbon dioxide, 22 mM./L, calcium 8.6 mgm., and phosphorus 1.3 mgm.

Spinal fluid on admission: no cells; protein, 37 mgm. percent, sugar, 90 mgm. percent, and serology, negative.

Skull x-rays, normal; pineal not calcified. Chest x-ray on admission, normal; x-ray on day of death showed "pulmonary edema" and questionable infiltrate in left upper lobe.

Hospital Course

In spite of 3,000 cc. of fluid administered daily through an intravenous intracatheter for two days, along with a multivitamin preparation, the patient remained confused and there was no change in the neurologic picture. The intravenous vitamin preparation contained 50 mgm. thiamine, 10 mgm. riboflavin, 100 mgm. niacinamide, and 15 mgm. pyridoxine.

On the third hospital day, the patient developed temperature to 102°, severe dyspnea, rales throughout both lung fields, and stupor. The fever persisted in spite of tetracycline and streptomycin therapy; two days later the blood culture taken at the onset of the fever grew penicillin resistant coagulase positive Staphylococcus. Urine and stool cultures showed no Staphylococcus, and chest x-ray was normal; but two days later, phlebitis of the arm developed at the site of the intracatheter; it was believed to represent the source of the staphylococcal inocculation. The patient remained febrile in spite of IV methicillin, 20 gm. daily; the neurologic picture remained stable. Twelve hours prior to death, he developed severe tachypnea, rales at both lung bases, and ventricular gallop; he became cyanotic and comatose and, in spite of the use of tourniquets and intravenous digoxin, died. Throughout the hospitalization he received approximately four liters of intravenous fluid daily with the multivitamins, and maintained a urinary output of one liter per day. For his anemia, he received three units of packed cells in the middle of his hospital course.

Differential Diagnosis

Lowell Lubic, M.D.: I shall not discuss the infectious process, but will concern myself primarily with the neurological complications. On his first admission in February, 1960, the patient gave a history of a heavy intake of alcohol for many years and a poor intake of food for approximately six months. His complaints were numbness of the feet and weakness of the legs for approximately one month. He was mildly confused. The protocol does not expand on the word "confusion," but I believe it is important to evaluate confusion in a more sophisticated manner.

Was he disoriented, and if so, in what spheres? Did his confusion appear to be related to the toxicity associated with his infection? This type of information is useful, particularly when we evaluate the other neurological findings. Neurological examination showed decreased sensation to pin, touch, temperature, and vibration below the knees. He had absent knee jerks and absent ankle jerks. In addition, he had weakness in the proximal muscles of both legs.

It seems obvious that he had a polyneuritis which, in view of the high intake of alcohol and the poor intake of food, should be classified as an alcoholic polyneuritis—related, of course, to malnutrition and vitamin deficiency in addition to the high intake of alcohol. Decrease in all sensory modalities is quite characteristic of a polyneuropathy. It is somewhat unusual for the patient to present with a proximal weakness, as most patients with polyneuropathy present with a distal type of muscle weakness. However, there are some patients with polyneuritis—particularly of the Guillaine-Barre type—who have proximal weakness in the legs.

The problem of the type of confusion is important. In Korsakoff's syndrome, polyneuritis is associated with a mental state characterized by confusion, disorientation in time, and recent memory loss, usually leading to confabulation. If the patient had this type of confusion together with the polyneuritis, the diagnosis of Korsakoff's psychosis would be justified.

One should remember that confabulation is not pathognomonic of alcoholism with secondary brain damage. Confabulation, which can occur in any type of brain involvement, represents a defense against the associated organic brain disease. If a person is disoriented as to time and has a recent memory loss, he doesn't know where he is or was. Consequently, to defend against your questions he will "make up a story."

This patient was treated in the usual manner for his malnutrition, and at the time of discharge the muscle strength returned to normal, as did all sensory modalities. Thus his polyneuritis seems to have been related to chronic alcoholism. The fact that his confusion cleared would negate the diagnosis of Korsakoff's psychosis, because confabulation and brain damage do not usually respond completely to therapy.

His second admission was in November, 1960, for a recrudescence of the previous symptoms, due to his having resumed drinking. On this occasion he again responded, but at the time of discharge he had absent reflexes and some diminution of sensation below the knee. (This emphasizes that while the alcoholic type of polyneuropathy is reversible early, it becomes irreversible if the patient continues with high alcohol intake and poor food intake.)

At his final admission, more than two years later, he had again been drinking large amounts of alcohol and had become aware that the weakness in his legs was returning. On the evening of admission while walking down the street he suddenly became lightheaded and weak, and fell to the ground. It is important to remember that the symptoms came on suddenly. He was unable to arise, apparently due to the weakness of his legs, and was taken to a hospital, where a laceration was repaired. He was disoriented and confused but was not confabulating. Neurological examination revealed that he was tremulous. There was a definite dysarthria. There was a slight disconjugation of extraocular movements, but no nystagmus. It is important to describe in more detail what is meant by disconjugate movements. Did the patient have the ability to abduct one eye without the other eye's representing an internuclear ophthalmoplegia secondary to involvement of the medial longitudinal fasciculus? Did he have unilateral nystagmus of one eye versus the other eye, which would again indicate a lesion of the medial longitudinal fasciculus? Did he give evidence of involvement of one of the ocular cranial nerves, which would produce disconjugate movements?

Any of these findings would be very useful in trying to localize a lesion in this patient, particularly in the brain stem area. The other cranial nerves were intact. On testing, his leg weakness appeared to be symmetrical and diffuse (i.e., both proximal and distal). You will recall that earlier, the weakness was primarily proximal in nature. That cerebellar tests were not done. This was a definite oversight. It would be important in this patient to determine if he evidenced cerebellar dysfunction in his upper extremities. It would be difficult to test the legs, because of the marked weakness. The reflexes and the strength in the arms were intact. The knee and ankle reflexes were absent. There were no Babinski signs and the sensory modalities in the legs were lost as before. He went on to evidence severe infection and septicemia, and subsequently expired.

To my mind, the most important point is that this patient was obviously (1) a chronic alcoholic, (2) malnourished, and (3) suffering from vitamin deficiency. I will therefore discuss my differential diagnosis in the light of neurological entities associated with chronic alcoholism and vitamin deficiencies.

I believe there is no question that this man had alcoholic polyneuritis. If sections of the peripheral nerves were taken at autopsy, this diagnosis will be confirmed. Regarding Korsakoff's psychosis, at no time did the patient have the confabulation that would support this diagnosis. An entity called parenchymatous cerebellar degeneration occurs in chronic alcoholics, and is characterized by slowly progressive degeneration of the Purkinje cells of the cerebellum, and slowly progressive ataxia primarily involving the lower extremities; there are no associated symptoms or signs related to the brain stem. Nothing in this protocol suggests this diagnosis.

An entity called Marchiafava-Bignami's disease is reported primarily in Italians age forty-fifty who have a high intake of wine. It is characterized by symmetrical demyelization of the corpus callosum and the anterior commissure of the white matter of the frontal lobes close to the cortex. The symptoms and signs are those of generalized convulsions, progressive mental deterioration, and aphasia. Again, it appears that this disease bears very little relationship to our protocol. However, this disease should be kept in mind when a middle-aged person of Italian extraction, who drinks a great deal of wine, develops gradual, progressive organic mental changes.

The spinal fluid tests, on the hospital admission of the case in protocol, were essentially normal. In polyneuritis, the spinal fluid is normal except for an occasional elevation of the protein. At no time do we have any evidence of inflammatory disease of the central nervous system characterized by a pleocytosis in the spinal fluid. In any patient with a debilitating disease, one should be aware of such entities as cryptococcosis or other fungal diseases that produce meningitis as a complication. Since this man had septicemia, the latter diagnosis could be considered, but is ruled out by the normal spinal fluid. In addition, a rigid neck or the other signs of inflammation of the meninges were not present.

Two entities are the most likely possibilities, first, Wernicke's encephalopathy, or Wernicke's hemorrhagic encephalopathy, most often associated with chronic alcoholism (although very rarely occurring in people who are not alcoholics). The disease is located around the mammillary bodies and from there involves the floor and the lateral walls of the third ventricle the periaqueductal gray matter, and the superior part of the brain stem, particularly in the midbrain area. Patients with this entity have a change in consciousness, varying from confusion, to stupor, to semicoma, to coma. The mental status in this patient is certainly compatible with the diagnosis of Wernicke's encephalopathy.

Such patients also have ataxia secondary to cerebellar disease; cerebellar function tests in the upper extremities of this patient could have determined if there was evidence of cerebellar disease in this patient. On the basis of the protocol as recorded, we cannot tell whether the patient did or did not have cerebellar disease.

Patients with Wernicke's also have nystagmus (definitely not present in this patient). They develop ophthalmoplegia characterized by involvement of part or all of the portions of the third nerve. There was no evidence in the protocol indicating ptosis, dilatation, or fixation of the pupils of either eye. This would indicate at least partially that the patient was not suffering from a third nerve paralysis. Patients with Wernicke's encephalopathy generally do not suffer from severe pyramidal tract disease which could be responsible for the marked weakness in this patient's lower extremities.

On the basis of the findings noted above, the patient did not appear to present with the classical signs of Wernicke's encephalopathy.

The other entity is central pontine myelinolysis—the most likely diagnosis. It is rare, originally described by Raymond Adams, M.D.,[1] an authority on alcoholic complications of the central nervous system.

Dr. Adams reported four cases of this entity which he stated had not been reported previously. Three of his cases had a strong history of chronic alcoholism and malnutrition. One had scleroderma with marked malnutrition; two patients presented with rapid onset of flaccid paraplegia followed by signs of bulbar involvement, and death within a relatively short period of time. At autopsy in both there was an extensive area of demyelination involving the rostral pons. Nerve cells and axis cylinders were preserved and there were no other areas of involvement. In the third case, the patient's weakness was located primarily in his lower extremities. There was no involvement of the cranial nerves or the upper extremities. There was a small central area of demyelination that affected the medial part of the pyramidal tracts as they course through the pons. Because of the distribution of the demyelination, the leg area was affected, but not the arm area.

In the case of the patient in protocol, at the time of his first admission his weakness was mild and proximal, while on his final admission the lower extremities were profoundly and symmetrically involved. This weakness in the legs, which came on suddenly, apparently was related to a pyramidal tract deficit superimposed upon his previous polyneuritis; when this occurs, the classic upper motor neuron findings are not obvious, being masked by the lower motor neuron findings which represent the final common pathway.

This would explain why the patient did not develop hyperreflexia or spasticity. In addition, if the lower motor neuron disease causes paralysis of the muscles of the foot and toes, Babinski signs would not be present. I believe that the patient described in the protocol had a sudden onset of weakness in his lower extremities related to demyelination of the center of the pons, primarily affecting the leg area. This would explain all findings in the protocol, including the confusion and the dysarthria.

Jack Myers, M.D.: To mention briefly some of the other aspects of his illness: (1) the matter of infection seems straightforward. The first time, he did have a staphylococcal pneumonia, but the terminal staphylococcal sepsis was not a basic part of his illness. (2) It is quite clear that this man had liver disease, most likely related to alcoholism. He had hepatomegaly, a modestly elevated alkaline phosphatase, and a slightly elevated bilirubin, and he developed increasing anemia with reticulocytosis. These changes may be solely on the basis of fatty liver, or he may have had Laennec's cirrhosis, but it is impossible to be certain without a biopsy. (3) He developed heart failure, frank pulmonary edema, which might be difficult to explain on the basis of a pontine lesion.

Dr. Lubic: It has been well documented by clinical observation that some patients with brain disease develop pulmonary edema. This is seen following operation for brain tumors, for example, particularly if there is some brain stem involvement.

Dr. Myers: This is well known. I asked in order to find out whether pulmonary edema has been a prominent part of the picture in previously reported cases. This should be a lesion affecting the vagal nerves, if we are to explain the pulmonary edema.

Dr. Lubic: So far as I am aware, pulmonary edema has not been prominent in the clinical picture, but two of the cases Dr. Adams reported had the clinical picture of pseudobulbar palsy with progressive respiratory failure.

Dr. Myers: We do have an alternative in this case, since we know that chronic alcoholics have myocardial damage. The moderately heavy intravenous fluid load superimposed on alcoholic myocardiopathy might well induce pulmonary edema.

Dr. Lubic's Diagnosis:

Central pontine myelinolysis.

Final Anatomic Diagnoses:

Central pontine myelinolysis
Cirrhosis of liver, Laennec's type
Acute proliferative and membranous glomerulonephritis
Myocardial hypertrophy, left ventricle, 415 gm.
Pulmonary congestion and edema, severe, right 1180, left 1120 gm.
Hydrothorax, 1,000 cc. bilateral
Congestion of spleen, 435 gm.
Ascites, 4,000 cc.
Fatty change of liver, severe
Acute and chronic pancreatitis, mild.

H. Richard Hellstrom, M.D.: Dr. Lubic made the correct diagnosis—an exceptional accomplishment, since this disorder usually is diagnosed after the fact, at autopsy. Typical Laennec's cirrhosis, present in most cases of central pontine myelinolysis, was evident, complicated by a severe fatty change.

In 1959, Adams [1] proposed the apt diagnostic term, "central pontine myelinolysis," when he described the first four cases of this disorder. Since then, at least thirty-five examples have been recorded.[2-8] The lesion consists of a fairly recent and severe loss of myeline, with essential preservation of axon cylinders, and has a remarkably constant location in the basilar portion of the pons, centered at the midline. The pontine lesion in the present case was typical in location and histology. With hematoxylin and eosin stain (H & E), the involved area was somewhat pale and the pontine architecture appeared disordered. Extensive demyelination produced a striking appearance with the Lillie Weil-Weigert myelin stain (Fig. 1). Some of the foamy macrophages present contained small myelin fragments. Axon cylinders were intact as shown by the Davenport silver nitrate method. No other lesions were evident in the central nervous system.

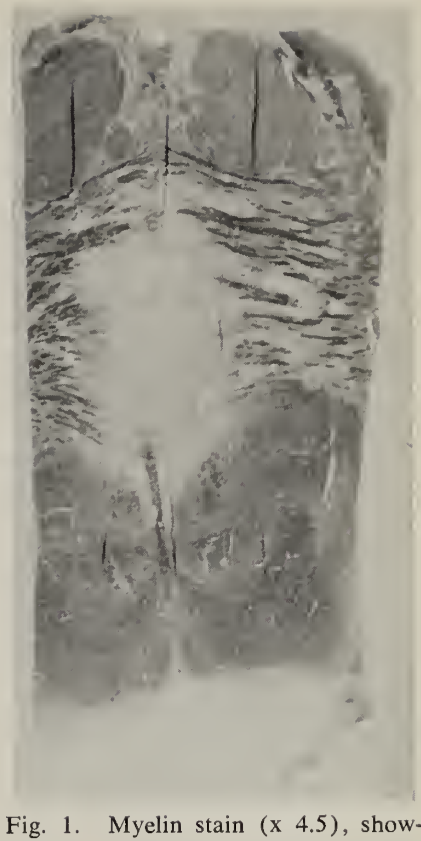

Fig. 1. Myelin stain (x 4.5), showing severe midline demyelination in the basilar portion of the pons (oblique section). Note medullary pyramids.

The pathogenesis of the pontine myelinolytic lesion is uncertain. Adams [1] implied and others [8] indicated directly that central pontine myelinolysis may be a relatively new entity. The lesion is striking in appearance, especially with myelin stains, and it seems unlikely that competent neuropathologists would not have recognized this lesion in the past, had it existed. Since small pontine lesions with little symptomatology have been observed, and in cases with larger areas of demyelination the central portion of the lesion appears older and has a more severe myelin loss, a toxic substance spreading from a central focus has been suggested as the pathogenesis of central pontine myelinolysis.[1]

Vascular occlusion apparently does not play a role, as vessels have been patent, and anoxic infarcts with the anatomic distribution of the pontine myelinolysis have not been observed. The constant and symmetrical location of the lesion probably is significant, as other central nervous system lesions with these attributes usually result from presence of a toxin or a nutritional deficiency. These include cyanide and carbon monoxide poisoning, and Wilson's, Wernicke's and Marchiafava-Bignami's diseases.

The usual association of central pontine myelinolysis with alcoholism and malnutrition lends credence to the possibility of a deficiency disorder. Also, Wernicke's disease has been found in association with pontine myelinolysis,[1, 6, 8] a synchronism consistent with a deficiency as the cause of the myelinolysis. In the present case, no hemorrhages or vascular proliferations were evident around the third and fourth ventricles or the aqueduct that would suggest the presence of Wernicke's disease. The cerebellum was not remarkable.

Central pontine myelinolysis has also been recorded in children[4] and in non-alcoholic adults,[1-4] who usually developed some severe, acute process preceding the neurologic changes, such as vomiting with dehydration, scleroderma with malnutrition, mumps, appendicitis, and purulent sinusitis with abscesses. It is also of interest that in several nonalcoholic[2,4] and alcoholic cases,[5,7] central nervous system lesions outside the pons have also been described.

The sharply localized position of the myelinolytic zone in the pons permits rather exact clinicopathological correlations, the degree and extent of the clinical involvement depending on the side and severity of the demyelinating process in the basilar pons. In the present case, the lesion involved corticospinal, corticopontine, and corticobulbar tracts, as well as the medial lemniscus, the trapezoid body, and the sixth nerve.

This array of involved structures correlates with the clinical course, the pertinent features of which are paralysis of rapid onset, pseudobulbar signs, and disturbance of extraocular movements. The paralysis of the legs is secondary to corticospinal tract involvement. Larger pontine lesions may involve the laterally placed leg fibers of the corticospinal tract, producing quadriplegia. The dysarthria represents pseudobulbar paralysis secondary to corticobulbar tract involvement. The disconjugation of extraocular movements relates to involvement of the sixth nerve, the only cranial nerve included in this lesion; clinically, other cranial nerves were intact.

Heart Failure

While all reported cases of central pontine myelinolysis have died of their pontine lesions, the terminal course of tachypnea and rales and the autopsy findings of severe pulmonary congestion and edema in this case indicate that congestive heart failure was the immediate cause of death. The disparity between the average daily intravenous intake of four liters of fluid and the urinary output of only one liter over the course of two weeks accounts for the pulmonary congestion and edema. A variety of factors probably directly related to the cirrhosis may have contributed to this lack of diuresis in the face of water loading.

Cardiac reserve is lowered with myocardial hypertrophy; this individual's heart weighed 415 gm. Myocardial hypertrophy is known to be associated with cirrhosis, one series reporting an incidence of 33 percent.[9] The pathogenesis of this hypertrophy is uncertain, and has been attributed to venoarterial shunts;[9,10] some cases are regarded as secondary to nutritional deficiencies.[11] Pigmented "heart failure" macrophages present in the lungs in this case indicate some chronicity of the pulmonary congestion. The anemia undoubtedly contributed to decreased cardiac reserve.

In addition, acute glomerulonephritis was present, a disorder which may be associated with congestive heart failure, the latter attributed to a marked reduction in glomerular filtration rate, causing salt and water retention.[12] The significance of this proliferative and membranous glomerulonephritis is difficult to evaluate, as this type of nephritis has been reported in 25 percent of an autopsy series of cirrhosis where no clinical correlates of renal function to the morphologic nephritis could be made.[13] In this case, however, the combined kidney weight of 770 gm., the prominent glomerular cellular proliferation, interstitial edema, and cellular infiltrate suggest a severe renal process. Also, clinical acute glomerulonephritis has been found in 7 percent of a large series of consecutive admissions of cirrhosis cases.[14]

Lastly, in cirrhosis,[15] the ability to excrete water after water loading is decreased, a renal consequence of hepatic cirrhosis which may be important in the present case.

Recognition of the signs and symptoms of central pontine myelinolysis, and of the fact that this disorder occurs in alcoholics and rarely in nonalcoholic individuals as a complication of other diseases, will most certainly raise the number of clinically diagnosed cases of this recently recognized and intriguing disorder of unknown etiology.

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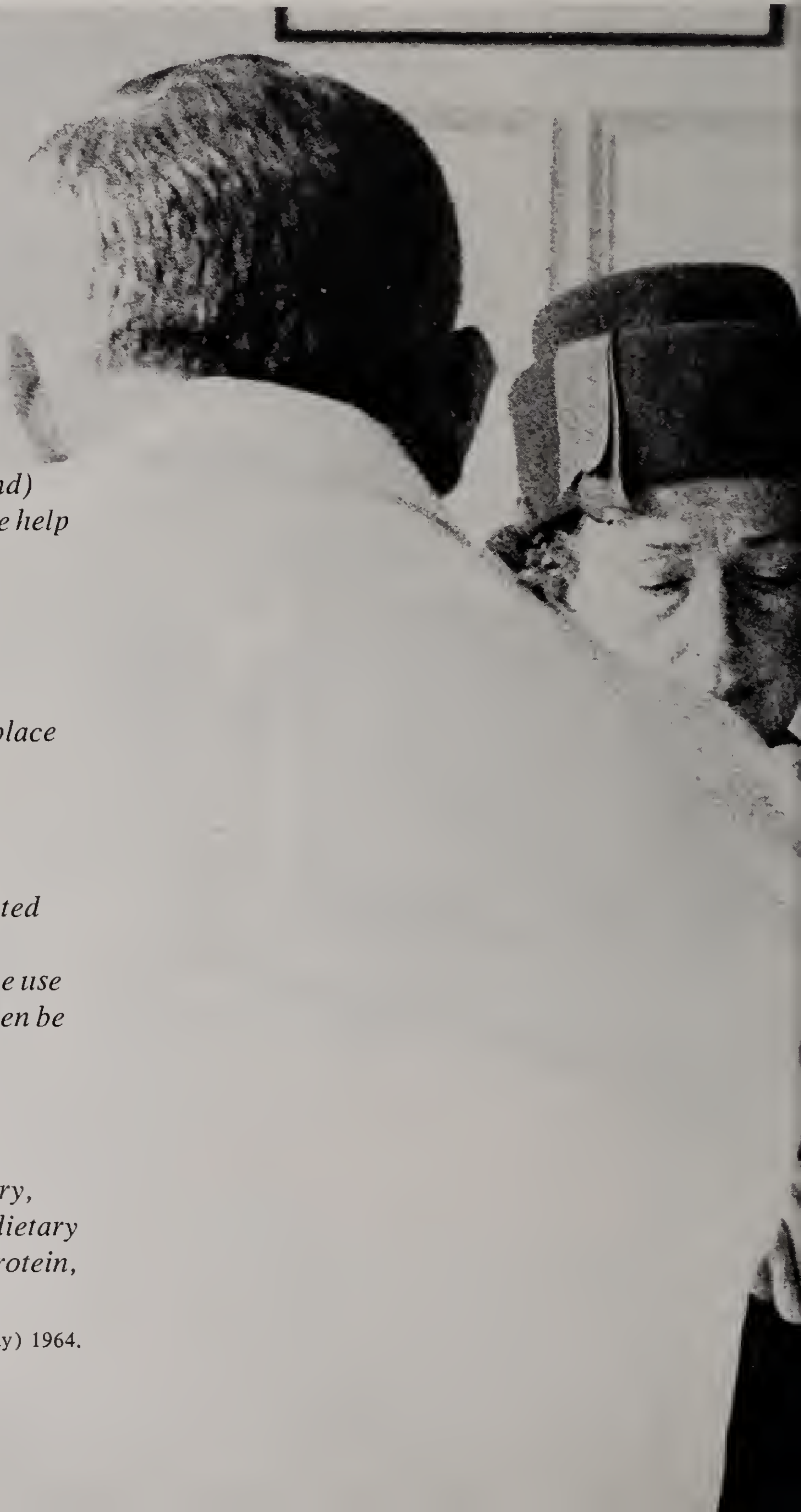

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M.D. Questions Answered

The 'Prevailing Fee' Concept and Medicare

An interview with Sydney E. Sinclair, M.D., Vice-President – Medical Affairs, Pennsylvania Blue Shield

- **Criteria for payment of fees.**
- **Why these criteria were established.**
- **How they will be used in compensating Pennsylvania Physicians participating in the Prevailing Fee Program.**

Will Blue Shield use an unpublished fixed-fee schedule to determine benefits under the Prevailing Fee Program? If not, how will Blue Shield determine the appropriateness of a physician's fee?

There is no such thing as a fixed-fee schedule in the Prevailing Fee Program. The appropriateness of a physician's fee will be determined according to the criteria "usual," "customary," and "reasonable," basic to the concept of the Prevailing Fee Program.

How are these important criteria defined?

"Usual" is defined as the fee ordinarily charged by an individual doctor for a given service or procedure.

"Customary" is defined as the range of usual fees ordinarily charged by doctors of similar training and experience, in a given geographic area.

"Reasonable" is defined as the fee which differs from the individual doctor's usual fee or the customary range of usual fees in an area, because of unusual clinical circumstances applying in a particular case.

How can you tell what an individual doctor considers to be his usual fee for any given procedure?

There are sources from which one would think this information should be readily available: (1) charges submitted by doctors on Blue Shield *Doctor's Service Reports* in the recent past, and (2) the individual doctor, through the use of a questionnaire requesting fees for commonly-performed procedures.

In the pilot studies of the Prevailing Fee Program, for determining an individual doctor's usual charges we have used charges submitted during the preceding year. In doing so, we recognized that the wording of the charge item on the *Doctor's Service Report* has led many doctors to submit the Blue Shield fee allowance, rather than their usual charge. Since these fee allowances are related to the income levels of our various plans, we realize that the charge data lack a certain degree of vailidity when used in determining prevailing fees. Another difficulty in using recorded charge data has arisen in relating these data, coded under the terminology of our 1958 Fee Schedule, to the greatly expanded, up-to-date terminology being used in the Prevailing Fee Program.

For these reasons, and because of the anticipated expansion of our Prevailing Fee Program and the use of this concept in administering Part B of the medicare program, Blue Shield proposed to the Board of Trustees of the Pennsylvania Medical Society that the usual fees of individual doctors be determined by means of a questionnaire-type survey. This proposal was approved by the Board of Trustees, and a jointly-cosponsored survey was begun on April 13, 1966, when a questionnaire was mailed to every doctor who had reported any service to Blue Shield in 1965. As of May 31, 68 percent of these questionnaires had been returned. An analysis of them is now being made, in cooperation with a

Dr. Sinclair, Vice-President, Medical Affairs (left) answers questions for PENNSYLVANIA MEDICINE editor, F. G. Martin.

subcommittee of the Council on Medical Service.

After the usual charges of individual doctors have been determined, how will you determine the customary range of charges for an area?

We must establish two further criteria, since we are trying to establish the customary range of usual charges made by doctors of similar training and experience in a given geographic area: (1) the geographic area must be defined, as must (2) the range of charges which can be considered customary in an area.

In defining geographic areas for our pilot studies, we have used the areas defined as "hospital service areas" for purposes of administering the Hill-Burton Act. These areas are considered relatively homogeneous with respect to factors influencing medical economics. For the most part, each of these hospital service areas in Pennsylvania comprises a single complete county. There are areas, however, which include several complete counties, or parts of several counties; and there are counties which are divided into several hospital service areas.

The '90th Percentile'

The method of defining what constitutes a customary range of usual charges within an area has caused a great deal of confusion in the minds of physicians, much of it due to contradictory statements concerning the so-called "90th percentile concept." Most physicians are aware that one or more of their colleagues, for reasons which he considers to be perfectly valid, may have "established fees" considerably higher than those of his colleagues performing similar services in the area. The problem lies in defining the "customary range," by a method which would permit the evaluation of a large volume of claims in a minimum period of time.

Pennsylvania Blue Shield felt that the 90th percentile concept, developed by the National Association of Blue Shield Plans, provided an answer readily adaptable to the computer processing necessitated by the large volume of claims received in the Blue Shield office daily. This concept provides that the upper limit of the range will be determined by a fee which would satisfy the "usual fees" of a minimum of 90 percent of the doctors in the area, and would also satisfy at least 90 percent of the charges received from that area.

Since the 90th percentile means that at least 90 percent of both the doctors and the charges must be satisfied, it serves as a critical point, rather than an end point, in determining the upper limit of customary charges. It does not mean, as has been implied, that 10 percent of the physicians in an area will have charges considered to be over the customary range for the area.

How does the criterion "reasonable" fit into the Prevailing Fee Program?

As it has been defined, this criterion is used to measure the charge which exceeds the individual physician's usual charge, or customary range of charges in an area. Whereas fixed-fee schedules have been based on the premise that an average fee will balance the very easy cases with the very difficult ones, the criterion "reasonable" permits individual consideration of cases in which the circumstances have been truly unusual.

The Prevailing Fee Program provides for the following three steps in measuring the reasonableness of a charge exceeding the usual or customary:

(1). *Review in the Blue Shield Medical Review Section.* This review will be made in order to determine whether or not a physician has described, on his report, unusual circumstances which did not fit into the coding classification used by the claims examiner. If the reasonableness of the charge cannot be established by this review, the next step will be

(2). *Correspondence with the doctor.* This will permit the doctor to review his records, including operative records, to determine whether or not there were unusual circumstances not specified in the original report. If the reasonableness of the charge remains in question following this correspondence, the next step will be

(3). *Referral to a district review committee.* Such committees are now functioning in five councilor districts of the Pennsylvania Medical Society, and steps are being taken to establish committees in the other seven. It is my hope that these district review committees will eventually form an integral part of the Pennsylvania Medical Care Program.

'Prevailing,' 'Usual,' 'Customary'

What is the difference between the "Prevailing Fee Program" and the "Usual and Customary" programs?

This question is difficult to answer in the absence of definition of what you mean by "Usual and Customary" programs. In answering the foregoing questions, I have given you the criteria used in the Prevailing Fee Program, and have outlined how these criteria are to be used in determining prevailing fees. Obviously, in administering any program, such definitions must be made.

It seems obvious to me that the basic difference between the Prevailing Fee Program and the Usual and Customary programs is that in the former, the criteria for determining the appropriateness of a physician's fee are clearly defined, whereas no such definition exists in the latter.

If a physician has not completed the fee questionnaire, may he still do so? And will there be any opportunity for a physician to indicate a change in his fees?

The answer to both questions is "yes." Naturally, Blue Shield is anxious to have on record the usual fees of as many physicians as possible to whom it will be paying claims. The Prevailing Fee Program provides that a physician may submit fee changes to be effective within a specified period.

In our pilot studies, we have not set this time period. Because of the problems involved in entering such changes in a computer program, it is likely that the period will be 90 days. In view of the infrequency with which physicians have made changes in their fees in the past, this would not seem to be an unreasonable time period.

Is it true that various physicians will receive different fees for the same procedure, depending upon the areas in which they practice?

Yes. Using the criteria of usual, customary, and reasonable, it is likely that the usual fees of different physicians within the same geographic area

(Continued on page 43.)

"All Interns are Alike"

It stands to reason. They all go through the same training; they all have to pass the same tests; they all have to measure up to the same standards; they all are underpaid, too. Therefore, all interns are alike.

That's utter nonsense, of course. But it's no more nonsensical than what some people say about aspirin. Namely: since all aspirin is at least supposed to come up to certain required standards, then all aspirin tablets must be alike.

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So next time you hear someone say that all aspirin tablets are alike, you can say, with confidence, that it just isn't so.

You might also say that all interns aren't alike, either.

BAYER ASPIRIN

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will vary, as well as the customary range of fees in different areas. It should be pointed out that such differences now exist in ordinary charging practices to which the Prevailing Fee Program was intended to correspond.

If a physician now has a Participating Agreement with Blue Shield, will he automatically become a participating physician in the Prevailing Fee Program?

In the pilot studies, a doctor participating in standard Blue Shield programs was offered the option of participating in, or not participating in, the pilot study, and a doctor not participating in the standard programs was offered an opportunity to participate in the pilot study. When the Prevailing Fee Program expands beyond the pilot study basis, however, it is contemplated that specific participation in this program will be sought.

When will Blue Shield replace the present Plans A and B with the new Prevailing Fee Program?

This will be determined by public acceptance of the Prevailing Fee Program. In addition to providing a different method for determining payment to physicians, the Prevailing Fee Program was designed to provide a much broader range of benefits. For example, combined medical and surgical care—not available in standard Blue Shield contracts—and the services of anesthesia, diagnostic x-ray, and diagnostic medical (including diagnostic radiologic isotope studies), now sold as riders to the standard Blue Shield contracts—are basic benefits in the Prevailing Fee Program.

There is considerable evidence that the consumer public desires additional benefits and is willing to pay for them. Additional factors which should stimulate a change will be the payment of reasonable charges under Title XVIII, Part B of the medicare law, and the coverage of a large number of persons as medical indigents under Title XIX of the medicare law.

What is the difference between a "prevailing fee" under the new program, and a "reasonable fee" to be paid under medicare by Blue Shield as the carrier in Pennsylvania?

Actually, there is no difference in determining a prevailing fee under the new Blue Shield program, and determining a reasonable charge under medicare. The medicare law states that in determining a reasonable charge, the carrier must take into account the customary charge of an individual physician, and the charges prevailing in the locality.

Obviously, these criteria in the law are similar to those used in the Prevailing Fee Program, although the words themselves are given different meanings. What is called the "usual charge" in the Prevailing Fee Program is called a "customary charge" under medicare; the "customary range of charges" under the Prevailing Fee Program corresponds to the "prevailing charges in a locality" in the medicare law.

Although the criterion "reasonable" is not mentioned in the law, discussions with the Social Security Administration have made it clear that this criterion is to be applied in determining a reasonable charge under the Medicare Program.

If a physician chooses the direct billing method rather than accepting an assignment, must a diagnosis be given on the receipted bill given to the patient?

At the present time, a definite answer to this question cannot be given. It is our understanding that a diagnosis must be given, but it has been indicated that in so-called "sensitive areas," an exact diagnosis need not be given, although sufficient information must be provided to enable the carrier to determine whether or not the services were covered and were medically necessary, in order that the carrier may determine proper payment.

Physicians should know that they may supply the necessary information by completing Part II of the *Request for Payment* without accepting an assignment. If this is done, the physician may submit the *Request for Payment* to the carrier directly, so that the patient will not be informed of the diagnosis.

If a physician is a participating doctor in the regular Blue Shield programs or in the Prevailing Fee Program, does the fact that Blue Shield is the carrier for Part B of medicare make the physician a participating doctor in medicare?

No, it does not. It should be clearly understood that there is no agreement to participate in the Medicare Program, such as there is to participate in the Blue Shield programs. It is hoped that with Blue Shield acting as the carrier in Pennsylvania, the longstanding cooperation between Blue Shield and the medical profession in general—and between Blue Shield and its participating doctors in particular—will be of benefit to all concerned. The contractual relationship incident to participation in Blue Shield programs, however, does not carry over to the Medicare Program.

Will a member of a regional review committee assisting Blue Shield in settling claims disputes under medicare be reimbursed for the time devoted to this committee activity?

It is possible for members of review committees assisting in the administration of the Medicare Program, either through reviewing reasonable charges or through the various phases of utilization activities, to be compensated for these services. The details of providing this compensation have not been worked out. There are both philosophical and practical questions to be resolved with respect to such compensation.

For example, some physicians have suggested that compensation by the government or by the carrier might place the members of the review committee in the position of being employees of either agency, thus producing bias. Since the review committees are functioning bodies of the Pennsylvania Medical Society, one suggested solution has been that payment be made through the Pennsylvania Medical Society, which would eventually be reimbursed by the government, through the carrier.

A practical problem arises, from the viewpoint of the Social Security Administration: that payment should be made for review of medicare cases only if similar payment is made for review of nonmedicare cases. Obviously, this raises the question as to the source of payment for review of nonmedicare cases.

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5 to 8 years — 8 mg. (1 tsp. q.i.d.)
8 to 12 years —10 mg. (1 tsp. 5 times daily)
Adults: 20 mg. (2 tsp. 5 times daily or 2 tablets 4 times daily)
*Based on 4 cc. per teaspoonful.

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Side Effects: Side effects are relatively uncommon but among those reported are gastrointestinal irritation, sedation, dizziness, cutaneous manifestations, restlessness, insomnia, numbness of extremities, headache, blurring of vision, swelling of the gums, euphoria, depression and general malaise.

SEARLE *Research in the Service of Medicine*

A Potent New Antiemetic Agent

In the majority of a group of patients in a wide age-span, nausea and vomiting of various etiologies was controlled with diphenidol

DRS. FRED J. PHILLIPS, CHUI LING CHAI,
AND DAVID M. SHOEMAKER

Quakertown, Pennsylvania

Diphenidol is α, α diphenyl-1-piperidinebutanol. Although not a phenothiazine, it appears (from tests in animals) to be equal to chlorpromazine in antiemetic activity, but to have no other significant pharmacological activity.[1] For example, at antiemetic doses it has little or no activity on the cardiovascular or central nervous system, and it does not appear to potentiate other drugs. In addition, it appears to have a considerable margin of safety, judging from detailed studies both in several species of animals and in human volunteers.[2] These properties suggest that as an antiemetic, diphenidol has merits over the phenothiazines for use in nonhospitalized patients; these concepts led us to evaluate it in our private practice.

Patients and Dosage

We gave diphenidol to 57 office patients, including 10 children, who had nausea and vomiting from various causes (Table I). The adults ranged from fifteen to seventy-eight years of age, the children from six months to fourteen years.

Among the first patients we treated was a four-year-old with leukemia who developed nausea and vomiting from increasing doses of methotrexate. Good results in this difficult-to-manage patient led us to expand our series.

Eighteen of thirty-four with viral gastroenteritis who were unable to take any medication orally were given the initial dose either intramuscularly or rectally, and subsequent doses orally, in most cases. Our usual dose was 40 mg. intramuscularly, followed by 50 mg. orally every 4-6 hours as needed. The suppository dosage was 50 mg. in adults and older children, and 25 mg. in younger children. In nearly half (fifteen) of the patients, treatment lasted for one day only, although in some cases treatment was continued for two or three days, and in one case, five days. Nausea had been present before treatment for from three hours to five days and vomiting for from three to 24 hours intermittently.

In the ten patients suffering from nausea or nausea and vomiting secondary to infections other than viral gastroenteritis, six received initial doses intramuscularly or rectally. Dosage schedules were the same as those for patients with viral gastroenteritis, but treatment lasted longer, usually from two to five days.

Six patients were emotionally upset, suffering from anxiety reactions due to job or family tensions. Five had had both nausea and vomiting for from four hours to one week, and one had had nausea only for forty-eight hours. Only two of the six could retain oral medication initially. Treatment with diphenidol lasted from one to eight days. Dosage schedules were the same as those mentioned previously.

The four patients suffering from drug-induced nausea and vomiting had had symptoms for from two hours to five days. Initial doses of diphenidol were given intramuscularly, 40 mg. to the adults and 20 mg. to the four-year-old child. Treatment lasted one day in three patients and two days in one.

One of the migraine patients had been vomiting intermittently for four hours, two of them for eight hours. Each was given an initial dose of 40 mg. intramuscularly; two of them needed subsequent doses, with one receiving a 50-mg. suppository and the other a 100-mg. oral dose at bedtime.

Results

We rated the results from diphenidol as "excellent" (complete relief), "good" (almost complete relief), "fair" (less than 50 percent relief), and "poor" (no relief). In rating this antiemetic, we considered whether it controlled nausea and vomiting after the first few doses, because nausea and vomiting will often subside without medication. Therefore, the shorter the time elapsed, the greater our certainty that the drug, not the passage of time, brought relief. This is particularly true in viral gastroenteritis.

Twenty-eight of the thirty-four patients with viral gastroenteritis obtained excellent results, nineteen of them after the first or second dose. One of these was a diabetic who had had severe nausea and vomiting for one hour, yet required only one dose of diphenidol for relief, despite the usual difficulty in controlling vomiting in diabetics. We continued treatment throughout that day and the next, just for good measure. Three patients had good results, three had poor results. The latter three were children, one of whom had been vomiting for six hours, one for ten hours, and the third for twenty-four hours. All had to be hospitalized, two because of dehydration, and one because he developed tonic convulsions and complete heart block. This child was originally thought to be suffering from drug idiosyncrasy, but was later found to have viral myocarditis.

Seven of the ten patients with nausea and vomiting secondary to in-

■ *The authors, all affiliated with the Quakertown Community General Hospital, are graduates of the University of Pennsylvania School of Medicine. Drs. Phillips and Shoemaker are members of the American Academy of General Practice. They and Dr. Chai are residents of Quakertown.*

fections had excellent results, three had poor results. Six of the seven with excellent results obtained relief with the first or second dose.

Four of the six patients with emotional problems obtained excellent relief with diphenidol, one, good, and one, poor. One who obtained excellent relief and one who obtained poor relief were subsequently found to be pregnant. The drug was discontinued in both cases.

In four cases of drug-induced nausea and vomiting we obtained excellent results in two cases, fair, in one, and poor, in one. Excellent results were also obtained in two of the three cases of migraine, fair results in the third.

Only one patient reported a side effect—"nervousness"—which subsided when she discontinued the drug. This patient, who is highly emotional, was suffering from grippe, and her "nervousness" may not have been drug-induced.

Comment

In our experience, diphenidol appears to be as effective as the phenothiazine antiemetics, but without their side effects. We had previously treated, with phenothiazines, seventeen of the patients in this series who had similar episodes of nausea and vomiting. In eleven, diphenidol was equal or superior to the phenothiazines, while in six it was inferior.

Two of our three migraine patients obtained excellent relief, one obtaining complete relief without the concomitant medication she had needed before—Compazine and demerol. The other, after the first intramuscular dose of diphenidol, could take and retain Fiorinal capsules, whereas in the past she had to be given Thorazine and demerol intramuscularly. The third patient obtained fair relief, in that her vomiting stopped, but she continued to be nauseated and to require morphine for her pain. Nevertheless, it would seem worthwhile to evaluate diphenidol further, in migraine.

TABLE I

Results with Diphenidol

Etiology of Nausea	Total Pts.	Excellent	Good	Fair	Poor
Viral gastroenteritis	34	28	3	..	3
Secondary to other infections (pyelitis, cholecystitis, tonsillitis, and grippe)	10	7	..	..	3
Secondary to emotional stress	6	4	1	..	1
Drug-induced	4	2	..	1	1
Migraine	3	2	..	1	..
TOTALS	57	43	4	2	8

Summary

Fifty-seven adults and children with nausea and vomiting were treated with diphenidol, a new antiemetic agent. Results in 76 percent of the patients were rated as excellent, in an additional 7 percent, good. Thus, an overall satisfactory response was seen in 83 percent of the patients we treated. No significant side effects were seen even on dosages of 50 mg. t.i.d. or q.i.d. In our experience, diphenidol appears to be a safe and effective drug for the treatment of nausea and vomiting of various etiologies. We found it as effective as the phenothiazines, without their drawbacks.

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2. Investigational use circular on SK&F #478 ('Vontrol'), Smith Kline & French Laboratories, June, 1965.

Why So Few Sleep-Fallers?

Except for very ill people, aged invalids, small children, and intoxicated persons, human beings rarely fall out of bed. Even persons sleeping on very narrow bunks only a few inches wider than their bodies manage to toss, turn, change position, roll over, and undergo all sorts of maneuvers, yet almost never fall out of bed.

Obviously, when he is asleep, each person must maintain a very precise awareness of space and his body's position in space, retaining far more awareness of what is going on around him than he realizes. But how the person accomplishes this intricate task while sound asleep is unknown.

Statistically, fully awake adults in good health fall down stairs, trip over things on the floor, fall down in hospital corridors, and so forth, much more frequently than sleeping people fall out of bed. Hence the awareness of space and danger is in some respects more active and alert in sleeping people than in those who are fully awake.

Some sleeping people also have an accurate sense of time, some being able to set a sort of mental alarm clock before they go to bed. Deciding to wake up at a certain hour during the night, they will awaken at almost that precise moment, in a pitch-black room. How do they maintain this sense of time while asleep? Many of them could not repeat the feat when awake; for example, if told to lie awake for precisely three hours in a pitch-black room and then to announce when the three hours had elapsed, they could not come anywhere near the correct mark, even though they can do it when asleep.

Is the regular beating of the heart a timepiece that somehow aids these sleepers? Probably not, yet some people do have a very accurate internal timepiece of some kind.

The practice of medicine relies heavily on the fact that people will not roll out of bed at night unless they are very ill, very old, very young, or sedated. Only a small percentage of hospital patients need side rails, and most patients without rails are perfectly safe even though their beds are high and the floor is of concrete or hard composition.

Perhaps someone should investigate this problem; sillier things have been investigated and have turned up interesting findings.

From an article by A. Harry Chapman, in *The Greater Kansas City Medical Bulletin.*

A Drug to Relieve Muscle Spasm

In more than two-thirds of a group of patients with musculoskeletal disorders, results with this medication were 'excellent' or 'good'

COLIN L. KAMPERMAN, M.D.

New Kensington, Pennsylvania

If there are no major tears following sprains and strains, rapid restoration of mobility is desirable. Older patients are likely to be especially gratified if they are enabled to resume normal activity soon after musculoskeletal trauma.

Often, relief of muscular spasm is all that is needed to restore function and promote healing. A drug such as carisoprodol, with both relaxant and analgesic effects, might hasten restoration of normal function. It can be used alone or in combination with other therapeutic measures.

Carisoprodol is a meprobamate derivative; its centrally acting muscle-relaxant properties might be due to the isopropyl group which replaces a hydrogen atom in one of the carbamyl nitrogens of meprobamate.[1] The analgesic effects of this drug seem to involve diminished central pain perception,[1] although it usually does not cause drowsiness.

Our study of a group of older industrial workers was done to ascertain whether or not immediate administration of carisoprodol would minimize pain and spasm associated with minor musculoskeletal trauma or dysfunction.

■ *Dr. Kamperman is an Associate Attending in Medicine at Citizens General Hospital, New Kensington, and is a member of the Industrial Medical Association and the Association of Military Surgeons of the United States. His practice is primarily devoted to occupational medicine with the Aluminum Company of America's New Kensington works, and secondarily to general practice.*

Methods

The twenty men in this series ranged in age from thirty-one to sixty-five years of age; sixteen were over forty-five. All but one were seen within hours after the appearance of their acute symptoms. One patient who complained of continual cervical pain and left sternocleidomastoid spasm was seen twelve days after injury.

Usual initial dosages of carisoprodol consisted of two tablets of 350 mg. each, taken from two to four times a day. Doses usually were halved following initial improvement.

Concomitant therapy was administered as follows: steroids or phenylbutazone, three patients; hydrocollator, three; wet dressing, two; daily diathermy, seven; ethyl-chloride spray, one; and local support, one.

Results

Results were considered "excellent" if pain and spasm diminished greatly or disappeared within a day or two. If the same relief was obtained after a longer time in cases where the pain or spasm would have persisted without treatment, or if the initial response was maintained for only a few days, the results were rated as "good." All other results were classified "no effect."

After initial improvement occurred, patients were continued on carisoprodol at reduced dosages as long as seemed necessary. The duration of treatment generally ranged from one to thirteen days. One patient who showed an erratic response, characterized by fluctuating improvement, was treated for twenty-one days; the final result was considered unsatisfactory.

Fourteen patients experienced substantial-to-complete relief of pain and spasm (Table I). Thirteen responded within two days, seven on the first day, and six on the second; one patient responded after a week.

Three patients complained of drowsiness; in two of them, reducing the dosage eliminated this side effect and maintained improvement. The other patient did not maintain improvement when his dosage of 700 mg. three times daily was halved.

Comment

Examination of the data about our treatment failures, and of the case in which no response occurred until after a week of treatment, yields some interesting information.

The patient who responded after a week had suffered a fractured vertebra at the level of C_3 some years before. He suddenly developed a spasm of the left paracervical musculature. Roentgenograms were negative and he was treated with carisoprodol, 350 mg. three times daily. Because the spasm was unrelieved after four days of therapy (which included hydrocollator packs), dosage was doubled. From this point on, he began to improve; when seen eight days later, he was asymptomatic. His response was rated "good." Thus carisoprodol therapy at dosages titrated to the patients' needs might be of value, even when initial results are disappointing.

The six patients who showed no response had had acute musculoskeletal conditions superimposed on histories of chronic intermittent low-back syndromes. In all of these cases, initial relief was followed by a recurrence of pain. For example, one of these patients had sustained a fractured right

TABLE I

Results of Treatment with Carisoprodol

Diagnosis	Excellent	Good	No Response
Strain	4	2	2
Contusions . .	3	. .	1
Myositis	2	. .	. .
Cervical whiplash injury	. .	1	. .
Spasm (hamstring, lumbar, cervical) . .	1	. .	2
Low-back syndrome	1	. .	1
TOTALS . .	11	3	6

radius and numerous contusions of the right shoulder and arm. Pains on the right side subsided within three days, but began in the opposite shoulder a week later. This might have been due to postural readjustment following immobilization of the right arm in a cast.

Summary

Carisoprodol's muscle relaxant and analgesic properties were evaluated in a group of twenty older men with minor musculoskeletal injuries. Spasm and pain were markedly reduced, usually within two days, in 70 percent of the cases.

Carisoprodol appears to be useful in early relief of pain and spasm associated with acute minor musculoskeletal conditions.

New or recurrent symptoms in six patients with histories of low-back pain did not respond to therapy.

Three of our twenty patients complained of drowsiness; this was eliminated by reduction of dosage. Improvement was thereafter maintained in two of these patients, but the third had a recurrence of pain when his dosage was halved.

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• Carisoprodol is marketed as Rela (R), Schering Corporation, Union/ Bloomfield, N. J.

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PRECAUTIONS AND SIDE EFFECTS: Electrolyte imbalance with hypokalemia, hypochloremic alkalosis and hyponatremia may occur. Other reactions may include blood dyscrasias, hyperuricemia and gout, nausea, jaundice, anorexia, vomiting, diarrhea, dizziness, paresthesia, photosensitivity and headache. Insulin requirements may be altered in diabetes.

WARNINGS: Dosage of coadministered antihypertensive agents should be reduced by at least 50%. Use with caution in edema due to renal disease; advanced hepatic disease or suspected presence of electrolyte imbalance. Stenosis or ulcer of small intestine have been reported with coated potassium formulas and should be administered only when indicated. Until further clinical experience is obtained, the use of the drug in pregnant patients should be carefully weighed against possible hazards to the fetus.

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Cardiovascular Diseases Today: A Changing Pattern

Where do you believe we have made our greatest gains in the treatment of C-V disease?

Undoubtedly, in the field of surgical management. Increasing numbers of scientific treatises during the past decade illuminate this trend. The correction of cardiac birth defects, the treatment of acquired valvular lesions, the replacement of diseased vasculature, the repair of aneurysms, the implantation of cardiac pacemakers, and the booster (or mechanical) heart, are examples of the teamwork between the heart surgeon and the cardiologist. In addition, as previously noted, we continue to witness a remarkable evolution in the surgical treatment of cerebrovascular disease. Finally, the value of the many surgical procedures in aiding (revascularization) coronary anastamoses is receiving increasing support.

How well do older patients tolerate cardiac surgery?

Data supplied by well trained surgical teams show little variation as far as the ages of the patients are concerned. Even open heart surgery may be performed in the elderly with a degree of mortality that compares favorably with that encountered in younger patients with similar lesions.

What have been the effects of the advancement of surgical therapy on the family physician and internist?

A fuller evaluation of each cardiac patient has become necessary, entailing the use of newer instruments, many of them made possible through the help and cooperation of the biomedical engineer. Such a desirable effect should not be viewed as new or unusual. Centuries of medical history show that whenever one field of medical science forges ahead, another, to keep abreast, intensifies its study of the problems involved, and furnishes applicable solutions. In such situations, newer diagnostic tests (or tools) appear.

What advances have been made in the field of C-V diseases as far as drug therapy is concerned?

These have been many. Outstanding, perhaps, is the emergence of more powerful oral diuretics. As in previous situations, these newer drugs are most beneficial when clearly indicated and when their widespread or indiscriminate use is avoided. All patients should remain continuously under medical supervision. These newer oral diuretics have taught us the importance of a prolonged study of the body electrolytes (potassium and sodium) in their relation to body fluids.

Have recent studies encouraged us to think of the ultimate prevention of some types of cardiac lesions?

A new and more rapid test for the presence of German measles virus is significant in this respect. A rubella vaccine (probably live) may be a future possibility. Again, the increased use of cultures in the presence of suspicious lesions of the throat, particularly in children, is proof of a growing awareness on the part of the family physician that subsequent cardiac involvement can be prevented.

How has this rapidly changing pattern influenced today's medical education?

It has pointed up the need for further postgraduate study, as well as some change in our concept of premedical and medical requirements. For example, more stress should be placed on mathematics and physics at the college level. Perhaps some changes in the present medical school curriculum should also be made. As far as graduate education is concerned, does the present state of the average medical school permit it to take on the responsibility of educating a greater number of graduate students? With added facilities, including an augmented teaching staff, graduate training can be carried out in non-university hospitals, even though they are at distant locations. Today's "C-V specialists" vastly outnumber "generalists;" consequently, costs of complete medical care are bound to increase. Obviously, a balance must be struck, and public dissatisfaction regarding the disappearing general practitioner answered. Since the "generalist" sees most patient problems at an earlier date than does the cardiologist, he should be qualified accordingly, and should select the best method of managing the individual problem in consultation with a qualified team of cardiac specialists mentioned. This will be possible only when the number of generalists is maintained at a suitable level for the community, and the future of the generalist is secured by appropriate periods of postgraduate study of the available methods of treatment. This applies particularly to the growing field of C-V diseases.

■ **Herbert Unterberger, M.D. questions William G. Leaman, Jr., M.D., Fellow, Council on Clinical Cardiology of the American Heart Association. Dr. Leaman prepared this Brief for the Council on Scientific Advancement, in cooperation with the Pennsylvania Heart Association.**

after surgery

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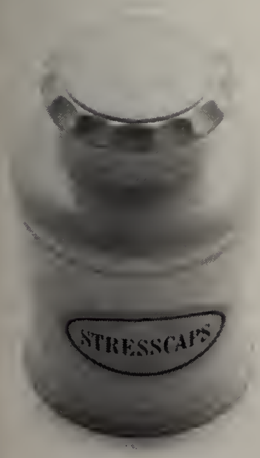

The Outlook in Medical Education

A leading authority discusses the field's opportunities and needs, and their implications for educators, students, and practitioners

PAUL NEMIR, JR., M.D.
Philadelphia, Pennsylvania

Dealing with the role of graduate medical education as well as with that of continuation medical education gives me considerable latitude, but I shall also touch on four quite unrelated areas which I believe present important problems.

The need for new medical schools has been well documented and requires little elaboration. In 1959, the Surgeon General's consultant group on medical education recommended a goal of 10,400 medical school graduates per year by the year 1975, in order to meet the needs of our expanding population. If the present attrition rates continue, medical schools in the United States must admit 11,700 first year students in 1971. In the fall of 1963, 8,750 first year students matriculated. Thus, over the next few years, medical schools must provide nearly three thousand more first year places than now exist.

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New places come into being by only two means: the creation of new schools, and the expansion of existing schools. Commitments have been made for establishing twelve new schools (some of them now starting construction), which will offer something over eight hundred first year places. This leaves 2,200 new first year places unprovided for.

Not only is the need greater, the demands of applicants are greater. Medical school applications for 1963-64 were 11.5 percent greater than for 1962-63, and 23 percent greater than for 1961-62 (the low point following World War II). The ratio of applications to acceptances is almost two to one, permitting admission committees to be highly selective. Equally important is the fact that even though the number of applicants has increased considerably, there has been no *decrease* in the applicants' scholastic aptitude—in fact, there has been a slight *increase*. This suggests that the lack of positions denies many well qualified candidates the opportunity to pursue their chosen careers.

Concerning curriculum, two points are very important in the planning and developing of any new medical school. At the May, 1765, commencement of the College of Philadelphia in the old Academy Building, John Morgan delivered his *Discourse Upon the Institution of Medical Schools in America.* Over two hundred years later, many of his comments are still pertinent to the arrangement of the curriculum in a new medical school. Dr. Morgan emphasized the importance of a sound background of classical and modern languages before a student enters medical school, adding that "an acquaintance with mathematics and natural philosophy we cannot dispense with, since we can go but small length in natural or medical inquiries without their assistance."

In the medical curriculum, Dr. Morgan continued, "The order which I would recommend in the study of medicine is to begin with anatomy, then *materia medica,* botany, and chemistry. The institutes [physiology] come next, and the study and practice should complete the work."

In modern times, the institutes have been placed during the first year, along with anatomy and chemistry. The curriculum at Stanford more closely follows Morgan's plan, in that anatomy, biophysics, and biochemistry are presented first, followed by pharmacology, pathology, microbiology, pathologic physiology, and finally the study and practice. I would stress the point that physiology, instead of "losing its identity" as many have claimed, should serve as the bridge. The significance of this concept is that the medical student should have the opportunity to study pathologic physiology in chronic experiments he himself carries out. This is important in facility planning and in individual student laboratory accommodations.

The importance of establishing a medical school in the heart of a university cannot be overstressed. The University of Pennsylvania counts as one of its great blessings the fact that its schools of medicine, dental medicine, and veterinary medicine, and its hospital complex, are all on the university campus, contiguous with one another and with the physics, mathematics, and biology departments. The traditional basic science areas, which have contributed importantly to past medical advances, must now be joined by such disciplines as mathematics, genetics, physics and psychology.

Dr. Szent-Gyorgi has predicted that "we can expect three great periods in the future history of biology and medicine. The first is the continuation of the present one, that of molecular biology, which is far from having run its course. The next great period I expect to come from the application of wave mechanics to biology. This period has already made most hopeful beginnings, but may depend for its full development upon progress still to be made in the parent science of physics. My feeling is that beyond all this lies the third period, which may depend for its initiation on hitherto unknown physical principles or on a far-advanced refinement of our present knowledge, which will then open the way to the understanding of the deepest problem—the nature of life, how it originated and perfected itself."

With the addition of a university hospital, a great university medical center would thus be created. Willard C. Rappleye has stated that the most effective organization in American medicine for bringing into focus all the necessary intellectual resources in the total spectrum of health is the modern medical center. It provides the ideal climate for the highest quality instruction, postdoctoral and graduate fellowships, hospital residency training, leadership in the continuing education of practicing physicians, and instruction in nursing, public health, dental, and other areas of the professional health field.

Principal Role

A major responsibility of a university medical center is to provide graduate education and continuing education.

Three decades ago, general practitioners outnumbered specialists five to one. In 1959, the number of general practitioners and specialists was about equal, since which time there has been an increasing trend toward specialization which, although decried by some, is in my opinion a good thing, and as it should be. There is every indication that this trend will continue. A poll of the 1958 graduating class of the University of Pennsylvania School of Medicine indicated that 83 percent availed themselves of specialty training.

Postdoctoral training in almost every specialty now requires almost as long a period as do the medical school years. The upward extension of medical education in teaching hospitals and postdoctoral programs in the medical and clinical sciences has attained major importance. In some of the leading centers, the total number of individuals in postdoctoral levels of preparation exceeds that of medical students in undergraduate status.

The number of hospital residents has increased by 600 percent in the past 20 years, while the output of American medical schools has risen 35 percent. In the two owned and four affiliated hospitals of the University of Pennsylvania, there are 565 house officers and fellows—considerably more than the number of medical students.

Four Years Not Enough

The current four-year medical school curriculum in the United States was inaugurated long before the tremendous growth of specialty practice, and was never designed for the education of the specialist. Indeed, the tendency now is to curtail even more, the time formerly devoted to the teaching of the medical and surgical specialties, and to place greater emphasis on the development and transmission of basic concepts. There is a tremendous body of essential, basic knowledge pertaining to the practice of each specialty that cannot be included in the course work during the four years of medical school and therefore must be learned for the first time on the postgraduate level.

Moreover, within recent years not only has an overwhelming accumulation of *new* facts come into being, we have also acquired more information, in depth, on *perennial* medical scientific problems. Above all, a revolution in biological thought has emerged. The ancillary concepts of age-old homeostatic theory have been seriously questioned and found wanting. Classical thermodynamic equilibria have proved unsatisfactory and a new concept of thermodynamics has been evolved to deal effectively with life in an open system, or flow state, in health and disease. The specialist must be sufficiently versed in the current status of the basic sciences as they apply to his own field of endeavor to provide a background for his continued self-education in these areas, and to be able to contribute personally to the improvement of treatment in his field.

Courses During Residencies

There is a need for organized course work during the residency period. Residents are, indeed, graduate students, and, like the graduate student in fundamental sciences, should have some formal course work during their postdoctoral residency program.

An organized course of instruction in the basic sciences, devolving from basic biology and oriented toward the particular specialty, appears to be an essential component of the residency program if we are to meet the requirements of our time and of the future. Such an arrangement will provide a continued stimulus to, and a broad background for, the process of self-education and it conceivably could result in greater flexibility in the medical school curriculum.

Essential Material

Basic science material presented to the specialist trainee should supply the background for specialized topics in medicine or surgery in great depth, from basic principles to specific applications. Subject matter should be integrated among the basic science departments, then correlated with the clinical specialty.

Radiology is a cogent example: the radiotherapist not only must be familiar with time-dose relationships, he also must have some understanding of recent advances in knowledge of cell physiology, mitotic inhibition and chromosome breakage, and the biologic efficiency of roentgen and gamma rays and electrons. Biologists, physiologists, biophysicists, geneticists, and hematologists must actively participate in the graduate training of the radiologist, whose clinical future is so clearly linked to advances in radiobiology being made by these diverse groups. Each specialty could similarly serve to illustrate the need for a multidisciplinary, correlative approach to the specialist's training.

The basic scientist has a major role in the training of the teacher-investigator. As the surgeon-preceptor must be responsible for the student's acquisition of surgical skills and judgment, so the basic scientist is responsible for his training in depth in a basic science area.

The tools and techniques in physiology—and to some extent in biochemistry, in microbiology, and in pharmacology—are familiar to the young investigator. Even these, however, have taken on new dimensions. Physiologists, for example, have become increasingly cognizant of the fact that they must study multiple simultaneous variables which characterize and determine the properties and behavior of biological systems. In order to ascertain the behavior of even one function, one must be simultaneously aware of the state of a multiplicity of other functions, even though they may not be undergoing marked change at the time of the investigation.

These efforts require familiarity with the use of computers and other technological equipment. Newer tools such as the electron microscope, the electron spin resonance spectrometer, the several types of chromatographic equipment, and the increasingly refined electronic sensors, have allowed for advances in areas in which little progress was achieved when conventional techniques were used. The traditional basic science areas which have contributed importantly to past advances in surgery must now be joined by such disciplines as mathematics, genetics, physics, and psychology; thus the medical faculty—especially the basic science faculty—has a major responsibility in postdoctoral programs.

Ongoing Medical Education

With the tremendous expansion in medical scientific knowledge that has occurred in recent years, it has become more apparent that universities' medical and other faculties in biological, medical, and physical sciences must take a major responsibility for continuation medical education. In the past, this activity was centered largely in the hands of community hospitals, specialty societies, general medical societies, voluntary health agencies, foundations, and local and national governmental agencies. With impetus given by the Association of American Medical Colleges (AAMC) and the American Medical Association's Council on Education and Hospitals, the medical schools have become increasingly aware of this responsibility.

Study All Through Life

That a good physician must be a lifelong student is axiomatic. Five ways in which he can continue his education without neglecting his practice are: (1) by reading the latest medical scientific literature; (2) by attending hospital meetings; (3) by attending medical society meetings; (4) by taking advantage of professional contacts; and (5) by enrolling in formal postgraduate courses. As the secretary of the AMA Council on Medical Education and Hospitals has stated, it becomes more difficult, each year, to stay abreast of scientific advances by means of the first four methods.

A recent survey by the AAMC Committee on Continuing Education has highlighted a number of facts. Data on the number of physicians attending American medical school courses indicate increasing interest in postgraduate courses or continuation medical education courses. The figures rose from nineteen thousand participants during the 1954-55 academic year to almost sixty thousand in the 1961-62 academic year.

A careful survey of medical schools' efforts revealed that of about 25 with good continuing medical education programs, probably less than a dozen had ones of a caliber of which they could be proud.

The median expenditure for American schools, for courses in continuing education, was less than $20,000; only seven medical schools spent over $100,000 on this endeavor.

Attempting to stimulate this activity further, the AAMC during its annual meeting in October, 1962, conducted its first conference on continuing medical education; extremely successful and enthusiastically received, it has become a regular, annual conference.

While 72 of the 87 American medical colleges have some type of continuing education program, 37 of these classed the responsibility as major and 25 as subordinate but not minor.

The university medical centers are best qualified to handle continuing medical education for the physician. These are the major medical research centers, where medical advances are most likely to occur and they have the physical facilities and the media of instruction, for optimum conduct of such programs; they have concentrations of patients for clinical instruction, and hospitals and clinics in which to carry on such instruction; and finally, they have trained educators whose lives and careers are devoted to education and research.

• This article is partially based on a speech Dr. Nemir gave in Muncie, Indiana, in connection with that community's interest in establishing a medical school there. Certain other subject matter herewith has previously appeared in the American Journal of Surgery. Dr. Nemir amalgamated the material at the request of Pennsylvania Medicine.

Isotopes in Hypertension

The radioisotope renogram with I-131 hippuran is a good diagnostic test in renovascular hypertension. By evaluating rates of inflow, extraction, and excretion of the radiolable, one can detect renal flow changes sufficiently severe to cause hypertension. Although the study is most sensitive in patients with unilateral disease, we have also detected abnormalities in those with bilateral disease. The renogram is at present used as a screening procedure for selecting patients for arteriographic studies. So-called "false positives" have been found in patients with parenchymal disease, but the "false negative" rate is extremely low.

N. David Charkes, M.D.,
Albert Einstein Medical Center
Symposium on Vascular Disease.

Thermography a Boon

Thermography enables radiologists to portray some 60,000 body surface temperatures photographically. These thermograms, or "thermal maps," can be used to help detect disease processes, and to follow the effects of therapy.

Experience with nearly 6,500 subjects has shown that the method has value in early cancer detection, in vascular diseases, and in many other areas of medicine.

One of thermography's most promising aspects is its ability to detect small breast cancers, even when other procedures such as the use of x-ray and clinical examination produce negative results.

Indications point to ever-expanding horizons with this new discipline in medicine, surgery, and biologic research.

Jacob Gershon-Cohen, M.D.,
Albert Einstein Medical Center
Symposium on Vascular Disease.

The Kennedy Assassination

Psychotherapy patients' and practitioners' reactions, as noted from data collected subsequent to the tragedy, are examined and evaluated

DRS. ROBERT L. LEOPOLD, JOSEPH FRIEDMAN,
ERICH LINDEMANN, AND HAROLD DILLON

Philadelphia, Pennsylvania,
And Boston, Massachusetts

On Sunday, November 24, 1963, a group of behavioral scientists—including a number of psychiatrists with special orientation to the effects of disasters and crises—met to plan a study of the Kennedy assassination of two days previously. They anticipated that many others would carefully investigate various facets of this political and social crisis, but this small group chose to settle for a less exhaustive and controlled investigation which would have the advantage of immediacy.

The focus was restricted to the glimpse of the situation obtainable from data pertaining to the therapeutic interaction between psychiatrist and patient during the 72 hours immediately following the assassination. Striving for insight into the therapist's emotional reaction to the tragedy, and into how he coped with it in his role as "caretaker" of other people who were affected by the tragedy, we needed information about the patient's immediate responses, and what consequent special demands he put on the therapist.

We mailed a hastily-constructed open-end questionnaire to the members of the American Psychoanalytic Association. One member of our group made available the staff and residents of a large urban psychiatric hospital as additional subjects for study. Twelve hundred fifty questionnaires were distributed between November 26 and December 3, 1963. Of these, 270 were returned (38 of them, unfortunately, unusable, due to incompleteness, illegibility, and the like). Remaining were 232 questionnaires as our data source (a yield of 19 percent). This small sample sharply limits the possibility of extrapolating, to the total pool of psychiatrists, findings from our respondents' replies.

A study of the returns soon revealed the cost of our haste. Possibly because we asked the wrong questions, we were unable to abstract any usable data pertaining to patient responses, nor did we learn very much as to how the therapist coped with his own responses as he dealt with the therapeutic situation. But we did gather some information as to what those responses were. We decided upon twelve categories of response, and rated primary, secondary, and tertiary responses for each therapist (Table I).

Subjective Reactions

One hundred forty-seven respondents reacted with "denial" as the primary feeling; eleven more gave it an ancillary importance. Grief, and rage at the perpetrator or perpetrators, were next in frequency. It is interesting to compare the responses of these professional people with those of the general public. Sheatsley and Feldman [2] studied a representative sample of the American public (N=1384), and although reporting no statistics on this point, they, too, mentioned the prevalence of initial stages of "shock and disbelief."

Among the populace at large, 54 percent felt the need to be with others, while 40 percent wanted to be alone. Of the psychiatrists in our study, only 19 responded in these terms; 15 persons (6 percent) wanted to be with others, while only 4 (less than 2 percent), wished to be alone. Krupp,[1] in writing in a popular vein, also gives ample evidence of denial in his own patient experience.

Essentially, our work points out the typically "human" reactions of psychiatrists. Their response was qualitatively like that of the nonprofessionals, but was it different quantitatively? Unfortunately, we cannot say so with authority.

Unsolved Riddle

This study suggests more questions than it answers. Obviously, any psychiatrist who saw patients immediately following the event in Dallas faced the dual task of dealing with feelings which the assassination evoked in his patients, while trying to cope with his own feelings. The situation was unusual in terms of the actual event of the shooting; generically, it may be viewed as far less unusual if one considers that we live in a world beset by crises—one in which communication is so swift that relatively few patients can remain untouched by these crises for more than a few hours.

Thus, the manner in which the psychiatrist handles his own responses to such events becomes highly signifi-

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cant. How he experiences and masters his share of the disturbance surrounding a common crisis may have enormous bearing on the degree and caliber of the assistance he gives others in their efforts to master their portion.

Our tables show in an admittedly limited way the feelings evoked during one grave crisis, in a particular group of psychiatrists. There is much need for further speculation and study with reference to the ways in which they handled these feelings. There is much need for a sharing of such experiences among psychiatrists, whether these experiences reflect mastery over responses in the therapeutic situation, or failure to handle them adequately.

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TABLE I

Emotional Reactions of Therapists

	Primary	Secondary	Tertiary	Total
Denial	147	10	1	158
Anger	13	24	16	53
Grief	44	53	13	110
Dissociative trends	7	4	0	11
Anxiety symptoms	8	13	2	23
Somatic symptoms	4	1	0	5
Need to be with others	2	8	5	15
Need to be alone	0	4	0	4
Personal guilt	1	0	1	2
Political fear	4	2	1	7
Reference to personal	1	5	8	14
loss of parent	(0)	(2)	(4)	(6)
sibling	(0)	(0)	(0)	(0)
child	(0)	(1)	(0)	(1)
spouse	(0)	(0)	(2)	(2)
analyst	(0)	(1)	(1)	(2)
unspecified	(1)	(1)	(1)	(3)
Anger at President (for self-exposure)	1	1	2	4
Unscorable (No.=38)				

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Public Health Highlights of 1965

The Secretary of Health reviews his department's programs and records, stressing particularly important areas of productive effort

CHARLES L. WILBAR, JR., M.D.
Camp Hill, Pennsylvania

Vital statistics provide a baseline and guide for public health problems, since they serve as an index of health problems requiring special attention or emphasis.

There were 204,104 live births to residents of Pennsylvania in 1965, or 14,411 less than in 1964, a decrease of 6.6 percent. The 1965 resident birth rate of 17.7 per 1,000 population was the lowest recorded since 1945, when the figure was 17.1.

A total of 125,670 Pennsylvania residents died during 1965. This represents an increase of 1,845, or 1.5 percent more than in 1964. The crude death rate in 1965 of 10.9 per 1,000 population is slightly higher than the 1964 rate of 10.8.

The leading cause of death during 1965 was heart disease, which accounted for 52,685 deaths, or 41.9 percent of all deaths. The second most frequent cause was cancer, with a toll of 20,767; ranking third—vascular lesions affecting the central nervous system, with 12,466 deaths. Together, these three conditions accounted for 68.4 percent of all deaths recorded.

Other principal causes of death in rank order are: accidents (all forms), pneumonia and influenza, diseases of early infancy, diabetes mellitus, general arteriosclerosis, cirrhosis of the liver, and suicides. Of the first ten causes of death, only one is communicable.

Heart disease, the principal cause of death in Pennsylvania for 42 years, reflected an increase during 1965 of 607 more deaths than in 1964.

One very significant achievement for 1964-5 was the complete absence of poliomyelitis for the first time in recorded Pennsylvania medical history. This simple statistical fact represents intense effort on the part of thousands of practicing physicians to immunize family members under their care. It also reflects the department's educational projects, and the immunization programs conducted throughout the state.

The traditional programs of immunization and sanitation have been most effective against communicable diseases which were the major public health problems of the past. The control of chronic diseases, however, requires that public health workers apply different techniques. With a number of chronic conditions, control rather than prevention is the goal, since our present knowledge provides few methods of complete primary prevention.

Yet there are many steps public health agencies can take to assist physicians in preventing premature death and in reducing disability caused by such diseases. For example, the state Health Department has recently participated in screening programs to detect suspected cases of diabetes, glaucoma, phenylketonuria, and cancer. Prompt treatment of such conditions often makes the difference between death or disability on one hand, and recovery and control on the other.

During the past two years, more than 80,000 people in 30 counties were screened for diabetes; 700 new cases were discovered. During the screening of 26,000 people for glaucoma during this same period, several hundred persons with high ocular tension were referred to physicians.

The department is currently conducting a three-year demonstration program in oral exfoliative cytology. Smears were submitted by dentists and physicians from 880 oral lesions, of which nine were diagnosed as being cancerous.

New legislation requires that tests for phenylketonuria (PKU) be performed on all newborn children. Previously, the department, in cooperation with 167 hospitals, had engaged in a voluntary two-year program to investigate the value of the available tests for this condition. More than 75 children with PKU are now under treatment. These tests have given us one of the few weapons now available to prevent mental retardation. A child with phenylketonuria who remains untreated usually is institutionalized, at a cost to the public of more than $100,000 during his lifetime.

While screening programs offer one means of controlling chronic diseases, educational programs, too, can often be effective, encouraging people to adopt practices in their daily lives which make some chronic diseases less likely to occur.

One such program is the department's educational program on the hazards of cigarette smoking. Ten seminars held in 1965 at colleges throughout the state were sponsored by the Pennsylvania Committee on Smoking and the Health of Youth, of which the department is a member agency. The purpose of the program is to provide information to future teachers who will soon be in a position to help keep young people from acquiring the smoking habit.

Educational programs are being used to retain control over traditional health problems, too. As each birth certificate is received, a card is sent to the parents urging them to take the child to the family physician for immunizations against diphtheria, whooping cough, tetanus, polio, and smallpox. Concurrently, a general public education program is conducted to encourage immunization of older children and adults.

M.D.s' Help Needed

It is such programs as screening and immunization education projects in which the cooperation of physicians is most essential. As an example of what such cooperation can accomplish, almost 2 million school children received hearing screening tests during 1965. Of these, almost 30,000 were subsequently seen by physicians. This cooperative effort has done much to reduce hearing disability problems among children.

There are times when it is too late, or even impossible, to prevent disabling conditions in children. In some instances, the department provides direct services to reduce the effects of disability.

One such condition is cystic fibrosis. Because of the heavy financial burden on parents who have children afflicted with cystic fibrosis, the department offers assistance with treatment. More than 400 cases are receiving such assistance. In addition, some cystic fibrosis victims receive home treatment provided by the department's physicial therapists.

At Elizabethtown, the department operates a hospital for crippled children; services include and involve medical and surgical care, physical and occupational therapy, fitting of prosthetic devices and braces, elementary and secondary education, and medical social work—all at one location. During the past two years, about 560 children have received inpatient care. The average length of stay per patient was 270 days, and more than 2,000 children received outpatient care during this same period.

Services for children with cleft lip or cleft palate problems were purchased from nine clinics. More than 3,000 children received these services during the past two years.

One of the most difficult areas in our society is the health problems of the elderly. As a contribution toward meeting this need, home nursing care by public health nurses on a fee-for-service basis was made available in April, 1965. These services had been available previously only to welfare patients in the counties which had no organized Visiting Nurse Association nursing services.

Packaged Hospitals

Another health problem being met by the department is preparation for a possible national disaster. There are 165 packaged disaster hospitals located throughout the commonwealth. The Health Department's Division of Disaster Medicine purchased a mobile hospital to train staff for setting up and operating the packaged hospitals. The mobile unit, which contains samples of all components of the packaged disaster hospitals, was brought to each county for training of personnel in erection and operation procedures. This program has now been transferred to the Office of Civil Defense.

Many other services offered by the department aim to prevent disease or reduce disability. Meanwhile, the scope of environmental problems has grown as exploding technology and increasing population have created new hazards and made old ones more complex.

Maintaining a safe environment is an enormous job and is becoming larger. Last year, just the task of monitoring the safety and cleanliness of water in Pennsylvania required the collection and analysis of more than 200,000 water samples.

During 1964-1965, 74 communities installed sewerage systems; 37 additional communities have such systems under construction. During the same period, 54 communities constructed sewage treatment plants; 23 communities are now constructing such plants. Each of these installations requires many hours of inspection, plan review, and other supervision by sanitary engineers and water pollution control specialists, to assure proper design and operation.

Great strides were made during the past year to meet the problems of water pollution. The General Assembly, cognizant of the need for a strong clean streams measure, enacted such a law to up-date the state's 20-year-old Clean Streams Law.

By requiring coal operators to abate pollution from drainage before discharging it into the state's rivers and streams, the new law gives the Sanitary Water Board powers to end pollution from active coal mines. A large mine drainage problem still exists, however. Thousands of tons of acid mine drainage flow each day from abandoned coal mines. The cost of abating this source of pollution will be extremely high. It is estimated that a quarter of a billion dollars and years of effort are needed to abate mine drainage from abandoned mines in Pennsylvania.

Sanitation staff members of the department inspect and supervise food preparation and service facilities everywhere in the commonwealth. This responsibility extends from the corner drug store to the National Boy Scout Jamboree held at Valley Forge, in which, by means of proper sanitation measures, more than 52,000 scouts and visitors were protected from food poisoning.

New Test Aids Early Diabetes Detection

The tolbutamide tolerance test may offer greater specificity than does the standard two-hour glucose test, in early diagnosis of diabetes. A recent oral modification makes the tolbutamide test safer and more convenient without sacrificing reliability.

University of Pennsylvania Graduate Hospital clinicians based this assessment on a study of 105 patients, all of whom had normal fasting blood sugars but abnormal glucose levels two hours after a standard glucose tolerance test (GTT).

Fifty-two patients responded abnormally to the oral tolbutamide test. This result correlated significantly with family histories of diabetes, obstetrical histories suggesting the condition, or an elevated three-hour response to the GTT.

"The oral sodium tolbutamide test seems to be a valuable additional study in the appraisal of minimally abnormal oral glucose tolerance results, at least in the presence of obesity, liver disease, hyperthyroidism, uremia, myocardial infarction, chronic pancreatitis, spontaneous hypoglycemia, and lymphomas and related neoplasia representing the major disease categories in our study group," Drs. C. Robert Tittle and John H. Kerr reported.

Patients tested ranged in age from twenty-five to seventy-five; the group did not include pregnant, postoperative, or unconscious subjects.

Early TB Testing Urged

All infants six-twelve months of age should be tested for tuberculosis (preferably prior to having measles or smallpox inoculations), according to a recommendation by a joint committee representing the American Academy of Pediatrics and the American College of Chest Physicians.

- Measles caused the deaths of twenty-eight children in Pennsylvania in the past two years, the state health department reports.

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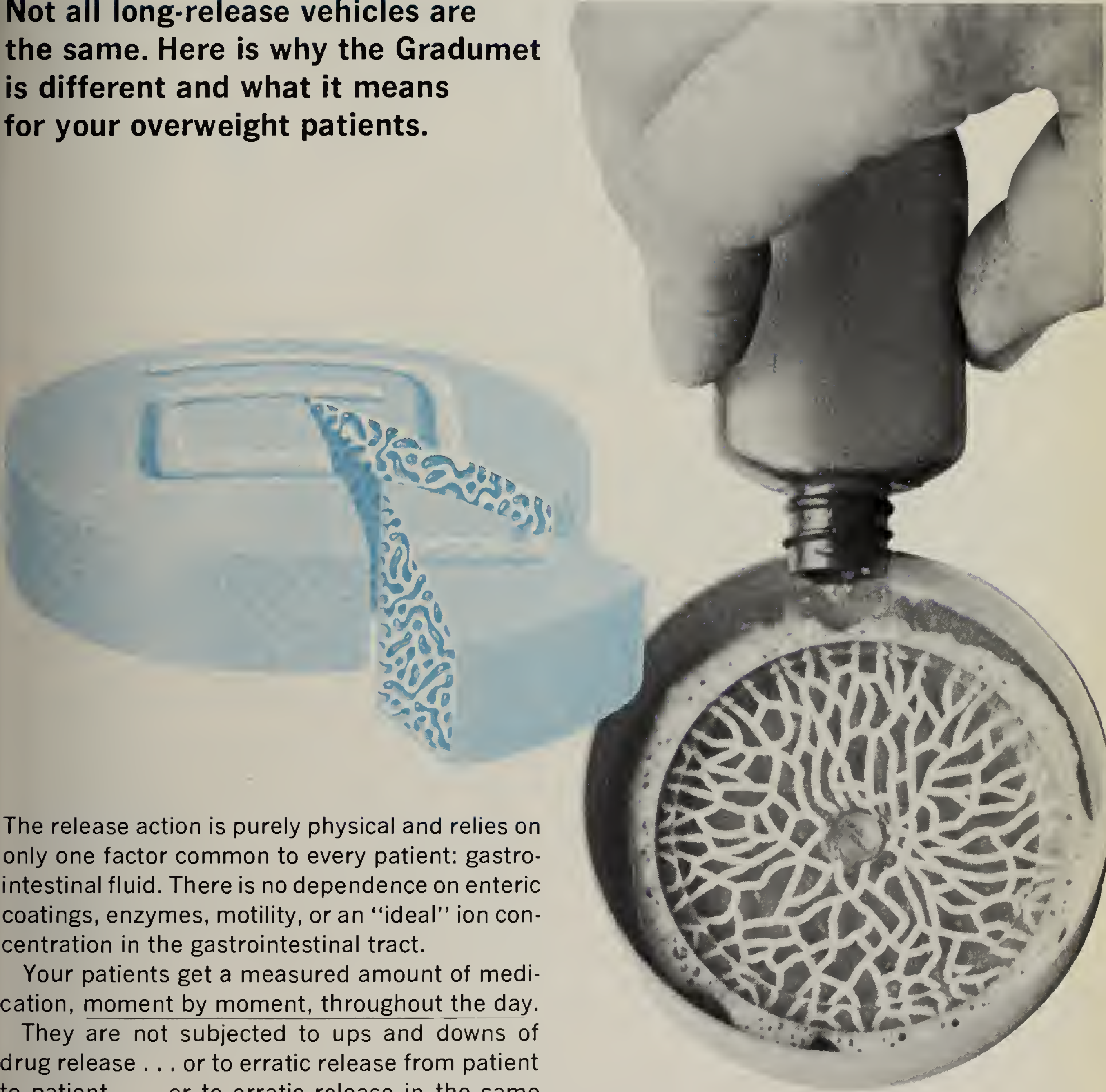

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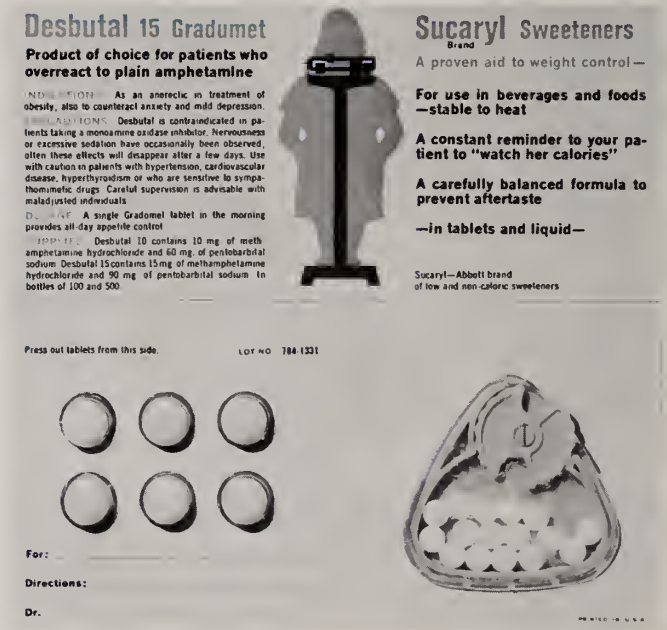

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The Criticisms Facing Medicine

Delineating a formidable array of society's accusations, a noted medical leader recommends a positive course for the profession

SAMUEL R. SHERMAN, M.D.

San Francisco, California

Despite long and vehement opposition by the very profession now delegated to implement "medicare," the passage of Public Law 89-97 has brought into sharp focus these questions: (1) what *is* medicine's relationship to society? (2) what *should* that relationship be? (3) how can medicine close the gap between what *should be* and what *is*?

The existence of these gaps between medicine and society has been responsible for the greatest problems facing our profession today. If we do not take decisive steps to close the gaps, our problems will multiply, on an accelerated basis.

A new America is emerging, with problems of illness, injury, unemployment, and crime becoming the responsibility more of society than of the individual. Our economy increasingly evidences "sharing" of fiscal responsibility by government and the so-called "private sector." Decision-making is more and more in the hands of large collective urban organizations and of the administrative branch of government, rather than in those of the voters and their elected representatives.

Scientific advances unquestionably underlie the rapidly changing character of medicine and of society, producing affluence which the nation wants to distribute more equitably here, and to share with the rest of the world. Advances in science have brought greater specialization on the part of individuals, plus automation of many functions; both developments necessitate order, coordination, and planning, if a technologically complex and socially interdependent society is to function smoothly.

In this changing environment, we seek answers crucially pertinent to the future of medicine and that of health care in our nation. I believe we must face the facts squarely and boldly, discovering why elements such as alienation, disjuncture, detachment, fragmentation, and disharmony have corroded some of medicine's relationships with society.

The time is long overdue for our attempting to discover why widening gaps *between* and *within* segments of our profession and our national culture have invoked images of physicians and their profession which we do not easily identify with ourselves.

I am not disheartened over the results of a California Medical Association study of the "Role of Medicine in Society" in which I have participated during the past three years. On the contrary, I firmly believe that our search has opened new horizons for exploration, has given us insights which we never had before, and has provided us with opportunities to identify ourselves—singly and collectively—with the problems of society. An article by Malcolm S. M. Watts, M.D., in the January, February, and March (1965) issues of *California Medicine,* presents the philosophical basis for our continuing study, and lays the foundation of our committee's *Second Progress Report,* available in booklet form from the California Medical Association, (CMA) 693 Sutter Street, San Francisco 94102.

Our study was conceived as a broad effort (1) to explore the nature of existing relationships between the medcal profession and society; (2) to delineate the reciprocal relationships and responsibilities of the medical profession and society, and the intercommunication of ideas and ideals between them; (3) to inquire into the demands and needs for medical care; (4) to determine methods through which our profession can best provide the highest quality medical care; (5) to reevaluate programs and policies in the light of medical advances and technological and social changes; (6) to explore the findings of other disciplines, particularly those in the behavioral sciences, in order to determine how the products of other research can be used by our profession; and (7) to determine how the amalgam of interests of the medical and social sciences and of the public can help formulate contemporary approaches to, and future directions in, medical care.

If our study has demonstrated a single, striking point, it is that we must recover the leadership we once held, achieving the same degree of dynamic leadership in social and economic spheres of medical care that we possess in its scientific aspects.

The committee reached this conclusion after months of review of applicable literature and many meetings with social and political scientists, representatives of community organizations, the press, labor, management, educational institutions, and other groups willing to explain their views of medicine's role in society.

We met with deans and other physician representatives of medical centers and schools of public health, then referred back to the literature to compare our interview notes with what we had read.

All this research and discussion yielded these twenty-nine important types of criticism:

1. The medical profession is unaware of, or indifferent to, the vast social, political, and economic changes in our society, and seeks to rationalize them.

2. Medicine and medical education have failed to recognize that they are integral, interrelated, and interdependent parts of society, and must conduct themselves accordingly.

3. Major medical organizations tend to move slowly in social and economic changes, and are not responsive to public demands for change.

■ *Dr. Sherman, a past president of the San Francisco Medical Society and of the California Medical Association, has held other positions in those organizations, as well as committee chairmanships in the AMA. He is associate chief of surgery at Mount Zion Hospital and is a Fellow of the International College of Surgeons.*

4. Medicine remains aloof, preferring not to involve itself in certain problem areas which directly concern the welfare of patients and of the public.

5. Medicine tends to approach human social problems from a pedestal, without attempting the humanitarian approaches necessary for proper solution.

6. Medical educators tend to ignore the need to impart to students the information on social and economic aspects of medical care which is important equally to the welfare of patient, physician, and public.

7. Rather than attempting to explore, by public discussion, a realistic consideration of its views on fundamental problems, medicine tends to rely on political maneuvering.

8. Individual physicians are rarely educated in the social, economic, and anthropological social sciences; they remain indifferent to these subjects, thus are poorly prepared to lead in such fields.

9. In formulating its public policy, medicine has not convinced the public that it believes that everyone is entitled to medical care as needed. Medicine questions the establishment by federal law of medical care as a guaranteed "right," but does not make effective public policy statements of its beliefs.

10. Medicine has not led the public to accept the profession's concept of government's proper role in providing medical care.

11. Medicine does not adequately support its Blue Shield plans. It should make more effective use of the "service principle."

12. Medicine has not developed positive, workable alternatives to financing medical care through the Social Security mechanism.

13. Medicine is negative toward proposals for social changes; it is "opposed to everything."

14. Medicine traditionally aligns itself with reactionary organizations opposed to social progress.

15. Physicians' incomes are too high in relation to those of members of other professions.

16. The medical profession is not interested in controlling medical care costs, nor in promoting preventive, rehabilitative, and comprehensive medical services.

17. Medicine protects its own members even when their behavior indicates the advisability of censure or of disciplinary action.

18. Medicine is divided in accepting closed panels, tending to exclude or ignore physicians who work in them.

19. Physicians provide impersonal medical care; they are unwilling to devote sufficient time to enable them to understand the patient or to appreciate his total problem.

20. Physicians are indifferent to the total environment of their patients.

21. The profession is fragmented by overspecialization. Specialists treat the patient impersonally, shuffle him about, and often overcharge.

22. Many physicians work "for those who pay them"—insurance companies, lawyers, etc.—rather than on the basis of recognizing a primary obligation to the patient.

23. California must educate and produce more physicians to supply its existing needs. It is not fulfilling its responsibility in medical education, and continues to be a "debtor" state in the education of physicians.

24. Although there appear to be enough physicians, they are poorly distributed in some ethnic and low-income groups.

25. Physicians' services to certain distressed or impoverished areas and populations are not sufficiently broad.

26. The medical profession does not do enough to assist capable students in financing medical education.

27. The profession is lax in providing, for its members—and requiring of them—postgraduate and continuing education courses.

28. Many physicians consider those in medical teaching and research activities no longer *doctors* with an awareness that concern for patients should be the prime function of all physicians, on all levels of patient care.

29. As members of the health team, physicians are arrogant, failing to give proper recognition, responsibility, and appreciation to those in the ancillary services.

Recommendations

Our committee had asked for honest, critical opinion, and—obviously—received it. Whether or not we agreed with a particular criticism, we recognized that it could not be ignored, if medicine is to resume a leading role. We summed up our findings by recommending that:

1. The medical profession increase its efforts to identify itself with society's total medical care problems, studying and trying to understand them. It should lead in formulating, with others, solutions to these problems, and should offer proposals recognizing the valid interest of the public and of the profession. It should inform the public more fully of existing and projected studies and proposals, and of its increasing concern with problems of mutual interest.

2. The profession should present creative, constructive, positive programs, and should modify its position on matters of public policy wherever such action serves the interest of improving health.

3. The profession should seek to arrive at a closer consensus regarding the nature of the proposals it presents to the public. It should strive to unify its membership; to gather to its fold all physicians and voluntary health insurance mechanisms dedicated to improving patient care; to encourage and support experimental methods for lowering costs; and to maintain and improve the quality of medical care provided for the public.

4. The profession should recognize the causes, technological advances, and reliance on team efforts that underlie the apparent growing detachment from the patient, and should try to revitalize the physician-patient relationship.

5. During his professional training, (undergraduate and postdoctoral house staff) the physician should be indoctrinated with the concepts of his individual and social roles and responsibilities. Too often, the resident's or intern's specialty training stresses techniques and procedures, but gives little emphasis to concern for the patient.

Two Paths

These goals represent a crucial decision as to which of two paths medicine will take. In pursuing these goals, medicine will address itself to the full scope of its true professional role in the new American now taking shape, rather than, by default, becoming simply a trade association geared to protecting the interests of a group of technical specialists in a technological society.

A particular application of this renewed "role of medicine in society" can be discerned in medicine's activities regarding increasing governmental involvement in health care. If our response is characterized by negation and isolation, we cannot hope to be influential. If, however, we offer positive and realistic solutions to public health problems, we will be able to exert great influence. Through meaningfully helping to guide governmental health programs, we can help assure such use and improvement of these programs as to negate extending them.

At the same time, we can work to strengthen nongovernmental programs so that not only will they provide the care needed for nearly all categories of patients, but that they will do a better job at less expense. Careful study and new and potent economic tools are necessary, within the voluntary system. The medical profession must rapidly assume authoritative leadership in the economics of health care if the private sector is to remain this nation's "mainstream" of medical care. Only through a "creative partnership" with government, and a revitalization of private programs of care, can we hope to gain this end.

The solution to the problems I have mentioned will not be arrived at easily. Due to the discrepant values and traditions existing in our society and in our profession, we may even find it difficult to communicate to segments of the public the nature of our philosophy and orientation in behalf of our patients. But this is all the more reason why we physicians must investigate more deeply the behavioral and social sciences. Then we may truly participate in what a distinguished cultural anthropologist terms a "shared culture," rather than thinking ourselves an "elite" body (or having the public hold that impression). We cannot countenance an image of our profession that depicts us as disinterested in human problems, and concerned only with economic goals and impersonal scientific relationships.

• This article is based on an address to the 1966 PMS Officers' Conference in Harrisburg.

We Can Help Fill a Critical Need

D. GEORGE BLOOM, M.D.,
Johnstown, Pennsylvania

A serious national problem is the shortage of professional nurses and other paramedical workers—including persons such as orderlies and nurse aids not usually included in the consideration now being given to this problem.

With the situation critical and the need immediate, our medical societies should take an active part in helping to solve the problem. Not only all medical organizations, but all physicians, as individuals, should be concerned with this need. Highly intelligent young persons who can be directed into health professions should be steered to appropriate colleges and universities; emphasis should be placed on the development of teaching, administrative, and supervisory skills.

Candidates whose capabilities are adapted to less intellectually demanding skills should be funneled toward jobs where service is paramount, and where technical skills are needed. The health field also needs people who can offer patients warm sympathy and understanding while carrying out tasks of personal service.

A major cause of the shortage of such workers is our failure to provide adequate education and training facilities. To alert physicians to the magnitude of our problem, I point out that there is a shortage of 35,000 registered nurses in this year's graduating classes, and of about 45,000 medical technologists within the continental United States.

The high school guidance counselor plays an increasingly vital role in providing information and advice to students who are interested in health professions, or who may, through proper orientation, develop an interest. Some of these counselors may require additional information which our state and medical societies can provide—on professional opportunities, location and availability of schools, availability of scholarships and other forms of financial aid, and other pertinent facts.

Our socieites should strive to involve community colleges in the training and education of paramedical personnel, a unified program being established so that we may have better-qualified teachers, classes of adequate size, and—through optimum utilization of faculty and facilities—reasonable costs. The most important paramedical groups now concerned in such schooling in our state include physicial therapists, physical therapy assistants, medical technologists, radiologic technologists, medical record librarians, medical record technologists, surgical technicians, physicians' (medical) assistants, occupational therapists, and inhalation therapists.

Funds available for vocational education are usually sufficient to cover total educational costs. Wards of the Department of Public Assistance may receive a stipend while in training. Medical societies could search out all sources of payment for tuition and expenses and make them known to prospective students and their advisors.

Low pay-scales are a major factor in the scarcity of people in paramedical jobs. The scale of payment is out of proportion to the importance of what they do. These people must be reimbursed according to their education and preparation. And ancillary health workers need and deserve hourly differential, holiday overtime pay, and similar consideration. We doctors should be studying this important aspect of the economics of health care, and supporting research in this branch of medical economics.

We can aid, too, in securing other emoluments. The work of nurses, for example, should be lightened and made more interesting by automation, by departmentalization of patients, and by similar devices which strengthen professionalism. Attention should be given to factors such as parking facilities, laundry services, and the provision of meals.

The licensing of paramedical personnel also merits study and research by our medical societies. My own basic philosophy is that all such workers who have a minimum of one year of didactic and clinical education should be licensed, just as are physicians, dentists, registered nurses, and practical nurses, by the State Board of Medical Education and Licensure, under amendments of the Medical Practice Act. The State Board should formulate rules and regulations for minimum curricula, minimum clinical experience, and minimum training periods. This should apply to all paramedical workers, but since medical and radiological technologists are examined and registered by their own associations, they should be the last groups to come under the jurisdiction of the State Board.

Every physician and every echelon of organized medicine should be actively interested in problems of recruiting, educating, and adequately compensating all workers in the health field.

• Dr. Bloom is immediate past chairman of the State Board of Medical Education and Licensure.

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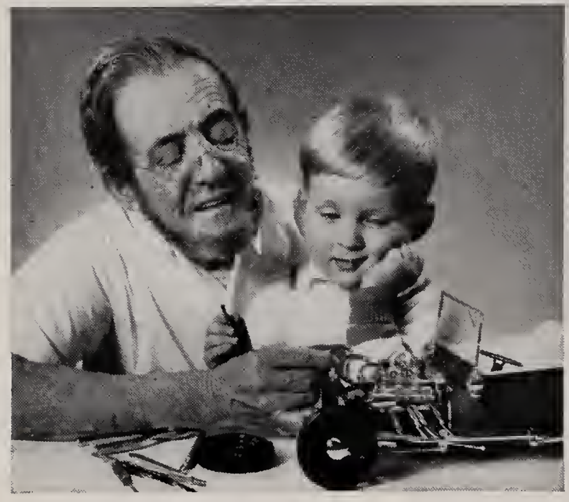

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Meprobamate: Drowsiness may occur and can be associated with ataxia, the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor, and respiratory collapse.

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History in the Making

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■ Varied contributions from throughout the state have been added to the medical history display being assembled at the William Penn Museum in Harrisburg. Under the leadership of Irwin Richman, Ph.D., an impressive "medirama" wil be unveiled this spring.

■ But the exhibit is by no means complete—in fact, it should grow and improve as time goes on. If you own some medical curio or artifact associated with the history of medicine in Pennsylvania, you are encouraged to give or lend it to the museum.

■ Or if you know of someone who has an interesting item, suggest that he turn it over for display.

■ After you contact the museum, describing the article or articles available, a representative will judge your items and decide as to their possible inclusion in the exhibit. An accompanying card will identify you as the donor.

■ Address: Irwin Richman, Ph.D., Chief, Section on Science, Industry, and Technology, William Penn Memorial Museum, Harrisburg 17120.

How Is Your 'C.Q.', Doctor?

You may be 'writing in the medical field,' but are you 'communicating' with the audience you endeavor to reach, and 'putting your message across'?

GEORGE E. FARRAR, JR., M.D.

Gladwyne, Pennsylvania

The fields of medical and scientific writing are fertile and productive. More medical and scientific material is rolling out of typewriters and presses than ever before in history. The output of books, articles, and news reports is so prolific as to make the "population problem" look mild. But is this grist really feeding the ones we aim to nourish? Just how high is our "Communications Quotient"?

Medicine's New Status

Medicine's role has changed from an ancillary one, in the nineteenth century, to a necessity in the twentieth. Healthy people are essential to this nation and all other nations for progress in economics, education, industry, art, politics, and philosophy. Much disease can now be prevented, and when illness does occur, it can be diagnosed and effectively treated; cases of serious injury can be rehabilitated.

It is clear, however, that more than fifty percent of our citizens do not benefit from the health care we know how to provide. Why? There are many reasons—economic, cultural, educational—yes, even religious.

But with improved distribution of all aspects of health care constituting an urgent necessity for the survival of the nation, many forms of implementation are being put into motion. (You recall Franklin D. Roosevelt's inclusion of good health among the four freedoms; after two decades, President Johnson is reviving and extending the New Deal in health matters.) The Comprehensive Mental Health Planning projects in each state during the past two years are mobilizing all mental health resources, on a local community level. We physicians are familiar, too, with the other health projects that are going forward. As Philip H. Lee, M.D., told the Association of Military Surgeons in November, 1965, we are attempting to develop a "pluralistic system" of health care: private enterprise plus government-subsidized care where private care is not being used. We are entering "The Great Society,"[1] but are we ready for it?[2]

In *The Affluent Society* (1958), Galbraith[3] concluded (according to my interpretation), that people were too stupid and too selfish to provide needed roads, schools, hospitals, parks, and the like. He recommended that the government tax the people in order to provide all these needed public works. This is an oversimplification of what the New Deal, the New Frontier, and the Great Society have aimed to do. In a 1963 address to a Cleveland meeting of the American Association for the Advancement of Science, Galbraith[4] pointed out that the object of our economy in the United States was no longer either efficiency in production or even goods produced, but rather the *jobs industry provides in producing these goods*. He indicated that a high quality of life is our economic goal, and that high income from universal employment is necessary to pay for schools, roads, hospitals, and so on.

Communications

Regarding communications, Archibald MacLeish commented some years ago when he was in charge of the Library of Congress, that he did not fear the destruction of civilization by an atomic bomb but that he *was* worried that man would suffocate under the weight of his own literary output. The fields of scientific communication are fertile and productive, but there is something wrong with the harvest. We are "producing," but not "communicating."

With half a million scientific papers *per annum* being turned out, we are struggling to analyze the "communications gap" or "communications confusion." There is a significant, widening communications gulf between the average practicing physician and the members of his profession who are working on the frontiers of medicine. Why does this gulf exist?

Communicating is a two-part system: there must be a writer and a reader, a speaker and a listener. When one component or the other malfunctions, communications fail. It is our job as "communicators" to see that this does not happen. We must maintain liaison with the reader or the listener—otherwise, why write, why speak? Somehow in our Babel of tongues, we have lost our audience-reaction. People are reading more now, and understanding it less; hearing more, and comprehending it less. We have vast mountains of literature on one hand, and vast canyons of misunderstanding on the other.

Homo Canem Mordet

The classic definition of "news" is "man bites dog." In our eagerness to produce interest-snatching material, however, we may find that we have outsmarted ourselves. In other words, while you are munching on Fido, take care not to be bitten. As medical and scientific writers, we must avoid some potent threats to our "communications quotient."

Superstition (or **prejudice**) heads the list. The scientific article which is intended only to "club" some other investigator, without adding new information, may do more harm than good by upsetting the average reader —when he finds he has been duped

■ *Dr. Farrar, a clinical professor of medicine at Temple University School of Medicine, holds an appointment at the university's hospital, and is affiliated with Wyeth Laboratories, Philadelphia. He belongs to several professional organizations, is an active committeeman in the PMS, and is a past president of the Philadelphia County Medical Society, in which he has also held other offices and responsibilities.*

into contributing to the confusion in a complicated field of research. It is human nature to take sides quickly in a controversy. Few investigators are true innovators; many are debunkers. The science writer can help by presenting such situations in an analytical rather than a combative manner.

We can talk about scientific "facts," but we may forget that they are not hard, immutable nuggets of gold that can be assembled and counted, with only one possible answer to be reached.

Bentley Glass[5] points out that science is objective only insofar as facts can be verified by other competent scientists. Objectivity requires complete integrity; not only is deception intolerable, plagiarism or unconscious borrowing also must be avoided. Science depends on freedom of inquiry, and of expression of opinion. Glass quotes Bronowski, "We *ought* to act in such a way that what *is* true can be verified to be so." Truth, and verification thereof, are essential to science—and to society as a whole. The legal oath, "the truth, the whole truth, and nothing but the truth," must be our goal in writing as well as in jurisprudence.

Scientific Viewpoint

Avoid bias. If you want to hold your end up in medical science, don't be bitten by the tendency to produce biased, slanted, or prejudiced writing.

Science is basically a point of view. If we are encumbered by a bias or a slanted viewpoint, we are not scientific. Harvey Cox[6] reminds us that centuries ago, the Assyrians had a firm basis for the science of astronomy, developing uncanny accuracy in astronomical observations. But the mass of people remained superstitious, unable to see the stars as stars, but seeing them rather as gods who could frighten and destroy. No matter how accurate the Assyrian astronomers were, they could not convey the true significance of their findings—because of superstition, fear, and prejudice.

Pomposity should also be avoided like the plague. The pompous writer gathers few readers.

Before you retreat, saying that this warning does not apply to you, let me give the condition another name: **overseriousness.** "Don't take thyself too seriously" is a good adage. Sir Theodore Fox[7] in his witty book, *Crisis in Communication,* quotes his former chief, Egbert Morland: "Be accurate, if you can; but, whatever happens, don't be dull."

Much writing today is dull because the writer has wrapped himself in a cloud of pompous seriousness that fogs the readers, killing communications before they can start.

If, tomorrow, you sit down at your typewriter and turn out "important" pages, you possibly ought to think briefly about the "Law of Diminishing Audiences." It has three steps—and there's not much left when we get to the bottom: (1) everything published is read by *somebody* (at least the author!); (2) everything published is not read by everybody who *should* read it (you may sincerely believe that a million people would benefit by reading your writings, but a million people *won't* read them!); (3) very few of those who do read, understand what they read.

When you reach this point in the inverted pyramid of the Law of Diminishing Audiences, you cannot put on airs and expect that each item you write will be another *Flexner Report.* Similarly, as you write for the air lanes, keep asking yourself, "Who's listening?"

Write for today, not for the future. Let future writers write for future readers. Your job is to have an impact today—on your neighbor, on your associate, or on the commuter who doesn't really want to read but who needs to be lulled to sleep.

Too often we forget that we must get the reader's attention (which may be why we lose our audiences so rapidly; they read our first few words, but we don't convince them that they should keep *on* reading).

"Seriousness" is dangerous. If you want to keep healthy in writing, be on guard for overseriousness. It can kill you as a writer.

A "stick-to-the-facts" policy can imperil your literary health. It can be recognized in the writer who seems to say, "Here are the statistics, you can read them yourself. Why are you so stupid that you don't reach the same conclusion I have reached?" He asks you to accept not only his facts, but his interpretation of them, as well.

Science is composed of purpose as well as of statistics. The facts aren't much help if they don't take you somewhere—if you can't reach some kind of worthwhile conclusion.

Glass[5] emphasizes that the scientist is obliged to communicate in these ways: he should (1) publish his research promptly, clearly, and in detail; (2) insure proper abstracting and indexing of his work; (3) devote effort to critical reviews in his specific field of competence (even though this is arduous and time-consuming), because he is best qualified to interpret the significance of available facts; (4) keep the public informed, since citizens must comprehend the nature of science, and feel its spirit, and this function is more and more becoming the science writer's duty; (5) teach the next generation; our cultural inheritance is even more extensive than the genetic characteristics we receive from our parents.

There is actually no truth or falsehood in statistics; the truth emerges in the conclusions reached—the interpretation made.

For example, in his book, *Therapeutic Nightmare,* Morton Mintz[8] misguidedly assumes that because he is only repeating "facts" (portions of testimony from three congressional hearings), his conclusions are irrefutable truths. In dealing with the question of dubious drugs, Mr. Mintz seems to ignore the whole realm of facts *not* presented at the hearings—overwhelming statistics on the millions of patients who *benefited* from use of the products. Then, too, he gives no clear definition of "new drugs." In the medical world, a "new drug" is a specific type of compound under the regulations of the Food and Drug Administration—not what the layman thinks of when he hears the term "new". Physicians and pharmacologists know that a "new" drug has behind it reams of records of chemical, toxicological, and pharmacological tests.

Mr. Mintz's book thus illustrates the danger of depending entirely on "facts" and "statistics," without venturing into the real world of understanding such data. Writing of this type is responsible for some of our communications confusion.

The specialty factor is probably the most dangerous, since there seems to be much to be said in its favor.

Should we depend entirely upon the "specialist" for news about what is important and beneficial in medicine? The medical field is divided into four major areas, as defined by New York City's former Commissioner of Health, George James:[9] (1) prevention of disease; (2) recognition of diseases in their preclinical stages; (3) treatment of symptomatic disease; and (4) rehabilitation of the patient, and support of incurable cases.

Looking at medicine in this perspective, we see the general practitioner as an expert in at least three of these four areas: he can work well in prevention, in recognition, and in rehabilitation. The field of the specialist is emphasized in the treatment of acute disease, and even there, the general practitioner can be very useful.

Finances

But there is a new kind of medical specialist on the medical scene: the financial specialist. He tries to convey the idea that medical practice and medical progress are determined only by the amounts of money spent.

From the *Medical Bulletin* of Westchester County, New York,[10] comes this encouraging note:

"Much of the talk about socialized medicine centers on the mechanics of payment for medical services. Nowhere in a surgical textbook does it say that the success of relieving intestinal obstruction is dependent on how the operation is paid for. A cold will last two weeks, no matter how fiscally sound or unsound its financing. It is conceivable that good medicine can be practiced under many economic systems. While we doctors are entitled to express our political and economic philosophy, it would be better if we did not give the impression that somehow, quality medicine and traditional methods of payment for medical care are joined together in a holy alliance."

As with any other medical consideration, physicians can become so involved in finances as to forget about the most significant factor: good patient care.

In a letter to *Science*, Benjamin Ginzburg[11] writes: "If we seriously face the fact that science can be used for both good and evil purposes, we must abandon the idea that science itself is an absolute good. It is the moral progress of the individual, and of society, which is the absolute good, and which alone gives value to scientific knowledge, whether pure or applied. Thus the pursuit of knowledge must be coordinated with the adjudged safety with which this knowledge, if attained, can be entrusted to human nature in its present state of moral development. Science has social responsibility. Science must know. Furthermore, science must do, and to do requires a soul."

And science must communicate, which it cannot do unless its use of communications methods and media are on a meaningful plane. Justice Douglas has observed that this great nation must strive continually to avoid complacency, mediocrity, and intolerance—a tenet which I believe applies to scientific writing just as distinctly as it does to any other facet of American life.

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★

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Edema, danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile, or when other potent drugs are given concurrently. Large doses are contraindicated in patients with glaucoma.

Precautions
Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should be closely supervised and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools. Make regular blood counts. Use greater care in the elderly.

Warning
If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy.

Adverse Reactions
The most common are nausea, edema and drug rash. Hemodilution may cause moderate fall in red cell count. The drug may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, generalized allergic reaction, stomatitis, salivary gland enlargement, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently.

Dosage
The initial daily dosage in adults is 300-600 mg. daily in divided doses. In most instances, 400 mg. daily is sufficient. When improvement occurs, dosage should be decreased to the minimum effective level: this should not exceed 400 mg. daily, and is often achieved with only 100-200 mg. daily.

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EDITORIALS

Medicine's Role in Today's Society

The desire—probably even the *goal*—of many leaders of medicine is to reestablish the preeminent position our profession once held in the American social structure. Serious students of our situation agree that we no longer occupy that high position, pointing out that the change has been concurrent with the sudden, swift alterations in our nation's social structure. Most physicians who see the differences, strongly recommend that we meet the challenge by reasserting the true goals of the profession, studying ways to achieve them in the new social setting.

But attitudes such as the following appear among physicians:

Some of us ignore the entire problem and live in a tight little world of our own—an unreal world, growing steadily smaller and less habitable.

Another group stoutly denies the existence of a change, claiming that the roar of the social revolution all about them is caused by a few poorly-behaved radicals.

A third group recognizes the change, but finds it so distressing that they refuse to take steps to meet it, even though they realize that it is engulfing them.

A fourth group, also recognizing the change, opposes it by the simple, futile mechanism of screaming for a return of the *status quo ante.*

We contend that the group noted in the opening paragraph is the only one to which a physician can honorably belong. We must strive to fulfill the ancient, honorable role of medicine in society by studying the advances in social and behavioral sciences, by being alert and responsive to the changing world about us, and by preserving medicine's integrity and eminence.

On page 63 of this issue, we present a stimulating essay on this subject's basic philosophy. It is gratifying to call attention to so fine a contribution. In *The Criticisms Facing Medicine,* Samuel R. Sherman, M.D., an active worker for the California Medical Association as well as for the AMA, outlines the problem in considerable detail and, in broader form, presents his concept of appropriate therapy.

We would enlist *you* to help restore medicine to its former elevated position in American society. We would reclaim all physicians from the *laissez-faire* and *status-quo-ante* groups. As a beginning, we direct all readers toward Dr. Sherman's wise words.

Pennsylvania Hospitals—An In-Depth Survey

John F. Worman, Executive Director of the Hospital Association of Pennsylvania, relates the following in a *Hospital Highlights* survey:

"Hospital services in Pennsylvania and throughout the country are expanding and will continue to grow to meet increasing public demand for high quality hospital and related health care.

"A hospital is basically a service institution, and thus its prime asset is the personnel who provide personal care of its patients. More than 121,000 were employed full time in 1964 in Pennsylvania's hospitals; of the hospitals' total annual expenditures, 66% was for payroll.

"The tremendous advances in technology, the new procedures in treatment and care of patients, special therapeutic devices and medications, and the changing patterns of care all highlight the need for hospitals' supervisory personnel to be proficient in up-to-date technical skills and inter-personal relationships.

"The Pennsylvania State University, with the cooperation of the Hospital Association of Pennsylvania, conducted a study—in depth—of 213 hospitals in Pennsylvania on 'the determination and measurement of supervisory training needs of hospital personnel.' The study had two major objectives:

"1. To determine the self-perceived training needs of administrative, supervisory, and other hospital staff personnel.

"2. To recommend methods for providing continuing professional education for hospital personnel.

"The report shows the concern of 6,021 hospital supervisory personnel for supervision in employee development. Specific training needs are reported for nine hospital departments.

The recommendations of the report are clearly stated for the university, the hospital, communities, and professional societies and associations."

Copies of complete reports may be purchased from: Continuing Education Business Office, J. Orvis Keller Building, The Pennsylvania State University, University Park, Pennsylvania 16802.

Our Demanding Goals

We all need rededication to cope with the changing medical scene. Our desire must be to furnish the very best medical care for all people at fair and reasonable fees. Cooperation between the government and organized medicine should, through medicare, make available to all senior citizens the best medical and hospital care.

Finding solutions to all the problems will not be easy. The building of more and better nursing homes should tend to ease the overcrowding of hospitals in the administration of medicare. Paper work for physicians should be kept to an absolute minimum so that most of the physicians' time can be devoted to caring for the sick.

The government should furnish adequate money not only to physicians but also to hospitals if the plan is to be a success. When citizens remember that billions are being spent throughout the world by their government, certainly they can expect this same government to be generous in caring for their health needs. EDMUND L. HOUSEL, M.D., President, Philadelphia County Medical Society; *Philadelphia Medicine,* January 5, 1966.

Mail Call

Adverse Drug Reactions

The American Medical Association is interested in obtaining unpublished data on serious, unusual, or unexpected [drug] reactions, even though such observations may be based only on suspicion or circumstantial evidence. . . . Reports are evaluated and the results published as cautionary statements, articles, summaries, tabulations, and editorials on the potential hazards and adverse reactions of drugs, in *JAMA*, state journals, and specialty journals. . . .

Information and report forms are available from the AMA Registry on Adverse Reactions, Council on Drugs, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.

F. J. L. Blasingame, M.D.,
AMA Executive Vice President,
Chicago.

Query from Dr. Sabokar

Please inform of your source of information for the *M.D.'s in the News* in PENNSYLVANIA MEDICINE.

I see many names missing when a certain event with names of a few is reported. Thank you.

Nicholas Sabokar, M.D.,
Lansdale.

Our sources include: news releases from medical schools, hospitals, medical centers, pharmaceutical firms, and medical and scientific organizations. We also glean news from pertinent publications (county, state, national, and international), and from newspaper clippings forwarded by the Mid-Atlantic Clipping Service, to which we subscribe. State Society departments inform us of M.D. activities, and in some cases we receive letters from doctors, their colleagues, or their family members, reporting newsworthy events. When we receive items listing a number of individuals, we note all names as listed.

The Editors.

North East Passage

In my opinion, medicare is unconstitutional, as no one sixty-five years of age [or older] may have hospital insurance except medicare insurance and a policy with some other company which will make up the 20 percent which medicare will not cover.

Rooms are set aside at a certain price, which a patient must accept—semiprivate (and only Heaven knows with whom or what). It is a case of being forced to accept medicare at the rate of $3.00 per month or have no insurance at all. Part A of medicare (room and board) calls for $40 and Part B will want $50 plus about $2.25 per month for the 20 percent which medicare does not cover; this totals $153. In addition to all of this, there is the percentage collected from all wage and salary earnings. I think this has to be matched by one's employer contributing a like amount. Heavens! All of this is supposed to be charity.

I am writing to every source that might have some influence. An appeal has to be made in some manner, as "The Great Society" will bring us to the same fate that has befallen other nations: they got so rotten at the core, that from the rot within, empires have crumbled.

Neither the Preamble to the Constitution nor the [Pledge of] Allegiance to the flag makes any discrimination as to age.

Insurance companies cannot under the new ruling insure anyone sixty-five or over for hospitalization, except for the 20 percent which medicare does not cover. Is this free enterprise?

The French philosopher, Alexis de Tocqueville, after a visit to the United States, wrote: "Democracy will last until those in power learn that they perpetuate themselves through taxation."

All persons sixty-five or older, insurance companies, and physicians are the targets.

Bernice M. Savage,
North East

Practice Tip

Not only are women addicted to narcotics capable of becoming pregnant, their drug habit can do serious harm to their unborn children, warns the federal Department of Health, Education, and Welfare.

Each year, hundreds of infants in hospital maternity wards are detected undergoing "cold turkey" withdrawal symptoms, due to their mothers' addiction. These infants can be cured through medication, but for babies whose addiction is undetected and untreated, mortality rates go as high as 70 percent.

If you discover pregnancy in an addict, be alerted to saving the life of the baby. Ideally, you would succeed in terminating the mother's addiction during gestation; but if efforts in that direction fail, prepare to give all possible aid to the newborn.

Even though in addiction, the sin of the mother can be visited upon the child, the skill of the medical profession can reclaim the innocent victim.

Thank You, Mrs. Mulligan

I am writing to call your attention to an error appearing in your obituary column in the May, 1966, issue.

In your account of the death of James H. Erhlenbach, M.D., Sacramento, California, you state: "There are no known survivors."

There are, in fact, his wife, one son, and one daughter.

Mrs. Erhlenbach was an active member of our auxiliary during the years the family lived in Schuylkill County.

Mrs. Peter B. Mulligan,
Ashland.

When information regarding survivors has not come to us, we state that there are no *known* survivors. Henceforth, however, we plan to use the statement, "No information on survivors has been made available to PENNSYLVANIA MEDICINE."

The Editors.

Penn Psychiatry Course

Basic and clinical psychiatry will be presented as an integrated program for nonpsychiatrists, in a 20-week course beginning September 28 at the University of Pennsylvania.

For additional information on the course, "Psychiatry and Clinical Medicine," contact William L. Webb, M.D., Department of Psychiatry, University of Pennsylvania, Philadelphia (telephone 1-215-EV 2-4600, Extension 2816).

MEDICAL SOCIETY NEWS

Recent PMS Board Decisions

■ **At its meeting May 18, the State Society's Board of Trustees and Councilors took the actions listed below.**

New PMS Units

Approved the creation of a Department of Communications within the administrative structure of the State Society, to provide public and professional relations services, and communications counsel to all administrative units of the society, thus permitting the Council on Public Service to concentrate on its own programs. Created a Board Committee on Communications, consisting of the president, the president-elect, and the chairman of the Board of Trustees and Councilors.

Created a Commission on Health Facility Planning, within the Council on Medical Service, to promote the development of regional and local voluntary health facility planning groups, with adequate physician-representation.

Report of Trust

Received the annual report of the Educational and Scientific Trust for 1965, and approved in principle the proposed program of the Trust to refinance the educational loans of physicians, following their graduation, with a forgiveness provision affecting a portion of the yearly repayment if practice is conducted in a rural or critical area of Pennsylvania.

Appointments

Appointed John H. Harris, Sr., M.D., Dauphin County, as the society's official representative on the Medical Policy Committee of the Medical Service Association.

Appointed Ralph K. Shields, M.D., Northampton County, as chairman of the committee to plan the 1967 Officers' Conference. Others named to the committee are: Drs. Charles A. Bikle, Franklin County, Valentine R. Manning, Philadelphia County, George W. Moore, Lawrence County, David J. Keck, Erie County, Park M. Horton, Susquehanna County (Trustee), and J. Everett McClenahan, Allegheny County (president-elect).

After giving preliminary approval to the by-laws of the Pennsylvania Association of the Professions, appointed Drs. Walter I. Buchert, Danville, and Robert P. Dutlinger, Harrisburg, to represent the society on committees of the new organization.

County By-laws

Approved revisions in the *Model By-laws* for county medical societies, and recommended that each county society consider revising its own by-laws to conform to the revisions.

Blue Shield

Approved the concept that physicians serving on review committees for the carriers of Part B under medicare should be compensated for their services by the carrier.

Approved the recommendation of Pennsylvania Blue Shield that payment for services rendered by nonparticipating physicians under the Prevailing Fee Program be set at the individual physician's charge or at the customary maximum, whichever is lower.

Approved the request of Pennsylvania Blue Shield to remove the restrictions on the number of persons who could be covered under the Prevailing Fee Program.

Insurance

Approved the recommendations of the Council on Medical Service, that the endorsement be continued on the group health and accident insurance program underwritten by the Insurance Company of North America which was amended to provide for a 10 percent premium reduction on the basic coverage for the over-forty-five-year age group, effective October 15, 1966.

The next meeting of the Board of Trustees and Councilors will be held August 10-11.

Schools Receive ERF Aid

This year's gifts from the AMA Education and Research Foundation to Pennsylvania's seven medical schools totalled $69,202. Eighty-one other schools of medicine throughout the United States are receiving proportionate amounts from the $1,133,000 contributed by the nation's physicians and other benefactors during 1965.

This year's allocations within Pennsylvania were as follows: The University of Pennsylvania School of Medicine, $17,615; Jefferson Medical College, $11,197; Woman's Medical College, $5,237; Hahnemann Medical College, $10,247; The University of Pittsburg School of Medicine, $11,482; The Temple University School of Medicine, $13,747; and The Milton S. Hershey Medical School of The University of Pennsylvania, $75.

SYMBOL OF ESTEEM—William A. Challener, Jr., left, Allegheny County Medical Society legal counsel, receives a plaque honoring him for forty years' service to the organization. William J. Kelly, M.D., immediate past president of the society, makes the presentation, at a dinner of the board of directors and a group of new members.

ANNUA
SCHEDULE FOR 196

October 9
SUNDAY

1:00 P.M.
Councilor District Meetings

3:00 P.M.
House of Delegates
(1st Session)

October 10
MONDAY

ALL DAY MONDAY

GOLF TOURNAMENT

All sessions 3 consecutive mornings

I. WORKSHOPS: (Attendance limited to 15 persons.)

8:00-11:15 A.M.
1. NEW TECHNIQUES IN OBSTETRICS AND GYNECOLOGY
2. INTENSIVE CARE TECHNIQUES
3. OBSTRUCTIVE PULMONARY DISEASE
4. NEW CONCEPTS IN PHYSICAL THERAPY AND REHABILITATION
5. NEW TECHNIQUES IN RENAL AND CARDIAC DISEASE
6. NEWER TECHNIQUES IN THE MANAGEMENT OF CANCER

MONDAY

11:45 A.M. to 1:15 P.M.

LUNCHEON WITH THE EXPERTS

CONTROVERSY IN TH

CORONARY HEART DISEASE

PANEL:

1. **1:30-2:30 P.M.** Current Coronary Artery Surgery—How Successful to Date?
2. **2:30-3:30 P.M.** Coronary Care Units—Tiger by the Tail?

BREAK

3. **4:00-5:00 P.M.** Vasoconstrictors & Vasodilators—Has Clinical Experience Justified Their Use In Acute And Chronic Coronary Heart Disease?

GENERAL MEDICAL PROBLEMS

PANEL:

4. **1:30-2:30 P.M.** Routine Autopsy—Has it Outlived its Usefulness?
5. **2:30-3:30 P.M.** Cancer Chemotherapy—What Does It Really Accomplish?

BREAK

6. **4:00-5:00 P.M.** Tonsillectomy—Where Do We Draw the Line?

1:30 P.M. Reference Committees
3:00 P.M. Reference Committees

8:00 P.M. Medicare In Action—A 3-Month Appraisal

October

TUESDAY

OBSTETRICS AND GYNECOLOGY

PANEL:

7. **1:30-2:30 P.M.** Therapeutic Abortion—Often or Not Enough?
8. **2:30-3:30 P.M.** Therapy of the Postm pause—Estrogens Forev

BREAK

9. **4:00-5:00 P.M.** The "Pill"—Is It Safe?

6:00-8:00 P.M. Alumni Din
Jefferson Temple
Wo
U.

ONVENTION
CIENTIFIC SESSIONS

DAY

October 12
WEDNESDAY

October 13
THURSDAY

All sessions 3 consecutive mornings

REVIEW COURSES: (Attendance unlimited.)

00-11:30 A.M. 1. CARDIOLOGY (including CARDIAC AUSCULTATION) (in association with Pennsylvania Heart Association)
2. RHEUMATIC DISEASE (in association with American Rheumatism Association)

CLINICAL CONFERENCES: (Attendance unlimited.)

30-11:00 A.M. 1. MEDICINE—Dr. Jack Myers and Staff, Presbyterian—University Hospital
2. PEDIATRICS—Dr. Donald N. Medearis and Staff, Children's Hospital

45 A.M. to 1:15 P.M.

LUNCHEON WITH
THE EXPERTS

WEDNESDAY

11:45 A.M. to 1:00 P.M.

LUNCHEON WITH THE EXPERTS

1:00 P.M. to 1:45 P.M.

ANNUAL ORATION

Controversy in Today's Medical Education
George T. Harrell, Jr., M.D.

ACTICE OF MEDICINE

ENDOCRINOLOGY

30-2:30 P.M.
etes—Does Strict Ther-
Prevent Complications?

30-3:30 P.M.
lioactive Iodine—Has it
ed Up To Its Original
mise in Diagnosis and
rapy?

BREAK

00-5:00 P.M.
esity—Do We Really Un-
stand It?

THERAPEUTIC

PANEL:

13. 2:00-300 P.M.
Antibiotic Therapy—How Can We Create Order Out of Chaos?

14. 3:00-4:00 P.M.
Management of Arthritis—What does Long-Term Chemotherapy Really Accomplished?

BREAK

15. 4:15-5:15 P.M.
Tranquillizers & Energizers—Have They Proved Their Worth?

VASCULAR DISEASES

PANEL:

16. 2:00-3:00 P.M.
Arteriosclerosis—How Important Is Diet In Prophylaxis and Treatment?

17. 3:00-4:00 P.M.
Cerebrovascular Disease—Have Surgery, Anticoagulants, and Vasodilators Proved Their Worth?

BREAK

18. 4:15-5:15 P.M.
Hypertension—What Does Therapy Really Accomplish?

3:00 P.M.—House of Delegates (2nd Session)

.M. Program for Public
Are We Becoming A
Nation of Addicts?

7:00 P.M.—State Dinner

8:30 A.M.

House of Delegates (3rd Session)

Specialty Meetings:

Pa. Allergy Assoc.

Pa. Chapt., Amer. Coll. of Chest Physicians

Pa. Acad. of Ophthalmology & Otolaryngology

Pa. Orthopaedic Soc.

Pa. Acad. of Physical Medicine & Rehabilitation

Pa. Phychiatric Soc.

OFFICE CALL—Charles L. Eater, Jr., M.D. (right), McClure, secretary of the Mifflin-Juniata Medical Society, chats with Robert Craig, PMS Staff man, during the physician's orientation visit to State Society headquarters. Dr. Eater participated in a program suggested by the Board of Trustees to provide county secretaries with basic information on PMS activities.

Dr. Eisenberg Heads Wainwright Group

Richard B. Eisenberg, M.D., Erie, was elected president of the Wainwright Tumor Clinic Association during its thirty-sixth annual meeting, held at Easton in mid-May.

Other officers named were: N. Henry Moss, M.D., Philadelphia, president-elect; Richard B. Magee, M.D., Altoona, vice-president; William H. Frank, M.D., Johnstown, secretary; and Horatio T. Enterline, M.D., Philadelphia, treasurer. Directors elected for three-year terms were: David W. Clare, M.D., Pittsburgh, and Drs. Henry B. Karpinski and Roscoe W. Teahan, both of Philadelphia.

Speakers were: Drs. William G. Johnson, Easton, John V. Blady, Philadelphia, and Gray H. Twombly, Robert J. Booher, and Alexander J. Conte, all of New York City. Other participants included Drs. Alfred S. Ketcham and Robert C. Hoye, both of the National Cancer Institute, Bethesda, Maryland.

For membership information on the association, contact Hugh R. Gilmore, Jr., M.D., Box 90, Harrisburg 17120.

Interim Trustee Named

Appointed to serve as Fourth District Trustee and Councilor is George A. Rowland, M.D., Millville. He will fill out the next four months of the unexpired term of the late Joseph J. Leskin, M.D.

Dr. Rowland, chairman of the PMS Commission on Rural Health, will hold office until a permanent Trustee and Councilor for his district is selected by the House of Delegates at the Annual Session in October.

AMA Study: Infant Deaths

Continued reduction of infant mortality is the chief concern of a national conference to be sponsored by the AMA August 12-13 at the Fairmont Hotel, San Francisco.

In special workshops, physicians and other health personnel will discuss identification of high risks, organization and delivery of special care services, manpower utilization, continuity of reproductive care, and problems of prematurity. Guest speakers will deal with perinatal mortality studies, obstetric and pediatric education programs, research questions, sex and expectant parent education, and population control.

For registration information, write: Secretary, Committee on Maternal and Child Care, American Medical Association, 535 North Dearborn Street, Chicago 60610.

- The average years of State Society membership of seventeen physicians recently approved for permanent associate memberships was forty years. One had been a member of the PMS for 55 years.

THE JEFFERSON MEDICAL COLLEGE
OF PHILADELPHIA

FOUNDED 1825: A chartered university since 1838. Coeducational. 1961. Graduates 20,524.

FACILITIES: Modern well-equipped laboratories; Curtis Clinic; Daniel Baugh Institute of Anatomy; Jefferson Hospital and Barton Memorial Division of the Chest; the Lovelace Foundation; teaching museums and free libraries; instruction privileges in sixteen other hospitals.

ADMISSION: For full particulars regarding admission requirements write to the Office of the Dean, 1025 Walnut St., Philadelphia, Pa. 19107.

William A. Sodeman, M.D., *Dean and Vice President for Medical Affairs*

AMA Responsible for Viet Project

Under a contract with the U.S. Agency for International Development (USAID), the AMA has assumed full responsibility for Project Vietnam, hereafter to be known as AMA Volunteers for Vietnam. Although formerly a cooperating participant, helping to recruit physicians to work in South Vietnamese civilian hospitals on a short-term basis, the AMA will now take over administration of the entire program.

In discussing the new set-up, Percy E. Hopkins, M.D., chairman of the AMA Board of Trustees, announced that Malcolm Phelps, M.D., El Reno, Oklahoma, will be field director, with headquarters in Saigon.

Dr. Phelps, a member of the AMA House of Delegates, will maintain liaison between physician volunteers and USAID, will visit the 16 provincial hospitals in which volunteers work, and will provide orientation for the M.D.'s when they arrive in the field.

Especially needed in South Vietnam are orthopedic and plastic surgeons, radiologists, and chest physicians, as well as internists and general practitioners. Up to 32 physicians are needed every 60 days. Seven Pennsylvania M.D.'s have to date given time to the program.

For information, write to AMA Volunteers for Vietnam, American Medical Association, 535 North Dearborn Street, Chicago 60610.

Says Drug 'Alert' Needed

Development of an "early warning system" to alert medical authorities to new hazards in drugs, in order to curtail or prevent harmful use has been advocated by Jean K. Weston, M.D., director of the AMA's Council on Drugs.

Such a system would involve electronic processing of thousands of reports daily. Data retrieved would help establish meaningful relationships regarding potentially untoward reactions. It would also lead to development of techniques for disseminating drug-reaction information.

Dr. Weston spoke at the dedication of Lederle Laboratories' new SubbaRow Memorial Library, which honors the company's first research director, Dr. Yellapragada SubbaRow, a native of India.

THANK YOU, DOCTOR—In recognition of fifteen years' activity in checking the PMS Your Health **column for medical accuracy, Edwin O. Daue, Jr., M.D. (left), Harrisburg, receives a plaque presented by Allen W. Cowley, M.D., PMS secretary, also of Harrisburg. Dr. Cowley acted as The Representative of the Pennsylvania Medical Society, at a recent meeting of the Dauphin County Medical Society.**

Youths' Abilities Reap PMS and AMA Rewards

Five Pennsylvania high school students with outstanding capabilities in science have been awarded scholarships and citations under programs of the State Society and of the American Medical Association.

Selected to receive PMS Science Fair Awards Scholarships were: Frank R. Rudy, Harrisburg, Douglas C. Wiseman, Huntingdon Valley, Linda M. Dauberman, Selinsgrove, and Veronica M. Bierbaum, Bethlehem. Each will receive $500 to defray costs of tuition, room, board, and/or books at the college or university of his or her choice. Rudy and Wiseman plan to enter premedical courses, and Misses Dauberman and Bierbaum will both major in biology.

Rudy won wide recognition when he placed first in the medicine and health category of the International Science Fair at Dallas, Texas.

Also honored at Dallas was Winifred J. Kennedy, Troy, who was cited by the AMA for her exhibit on "Fallout: Beta Radiation in Milk."

- More than 16,000 health education pamphlets on eight different subjects were distributed at the State Society booth at the Fiftieth Pennsylvania Farm Show in Harrisburg.

APPRECIATION—W. Benson Harer, right, a past president of the Pennsylvania Medical Society, receives a plaque honoring him for thirty-three years' service to Fitzgerald Mercy Hospital, Darby. Participating in the ceremony are Sister Marie, hospital administrator, and John J. Curtin, M.D., president of the medical staff. Dr. Harer is a PMS delegate to the AMA.

Auxiliary Will Help Recruit Students

As the State Society expands its efforts to recruit young people for medical careers, members of the Woman's Auxiliary will be available to assist county medical society recruitment efforts, according to Walter I. Buchert, M.D., Danville. As chairman of the PMS Advisory Committee on Medical Student Recruitment, Dr. Buchert has assured Auxiliary officers that the county societies will avail themselves of this help as needed, in such projects as the "Meet Medicine" assemblies being organized in high schools.

In her visits to county auxiliaries, Mrs. Lucian J. Fronduti, New Kensington, president of the Woman's Auxiliary, is enlisting physicians' wives to assist in coping with the shortage of M.D.'s—a serious current problem which threatens to become increasingly difficult.

Future M.D. Club No. 7

Sponsored by the PMS and implemented by the Philadelphia County Medical Society, the state's seventh Future Physicians' Club has been chartered—at Philadelphia High School for girls.

Benevolence Fund Six-Month Report

Between January 1 and June 1, gifts to the Medical Benevolence Fund amounted to $7,492. During March, April, and May, these donors gave a total of $6,528:

The Woman's Auxiliary to the PMS, and auxiliaries of the following counties: **Allegheny**, including gifts in memory of Mrs. William C. Wycoff and in honor of Mrs. Charles A. Orr; also, a gift from the ACWA Bowling League; **Beaver**, including a memoriam for Basil T. Owens, M.D.; **Berks; Blair; Bradford; Bucks; Butler**, including a gift honoring Mrs. Lucian J. Fronduti; **Cambria; Chester; Clearfield**, in honor of Mrs. Frederick R. Gilmore.

Cumberland; Dauphin; Elk-Cameron, including a gift honoring Mrs. Fronduti; **Erie; Fayette; Indiana; Lackawanna; Lancaster**, including memorials to Drs. Marvin C. Goodman, Christian S. Wenger, and Troy M. Schantz; **Lawrence**, including a gift in honor of Mildred Rogers, M.D.; **Lebanon; Lehigh**, including gifts in memory of Mrs. Harold Hersh and Mrs. Frederick R. Bausch, Sr.; **Luzerne**, including a memoriam for J. Franklin Robinson, M.D.

Montgomery; Montour, Northampton, a memorial to Mrs. Frances A. Gress; **Northumberland; Philadelphia; Schuylkill**, in memory of Joseph J. Leskin, M.D.; **Tioga**, honoring Mrs. Fronduti; **Washington**; and **Westmoreland**, New Kensington Branch.

Other contributions were made by: the State Society, in memory of Dr. Leskin; Dr. and Mrs. E. Roger Samuel, also in memory of Dr. Leskin; William S. Watson, M.D.; and Mrs. Joseph Butera.

Previously received (during January and February), were contributions from auxiliaries of the following counties:

Adams; Berks, in memory of Mrs. Robert A. Deach; **Blair**, in memory of Joseph C. Mattas, M.D.; **Carbon; Centre**, including a gift honoring Mrs. Fronduti; **Clinton; Columbia**, including a gift honoring Mrs. Fronduti; **Franklin; Greene; Indiana**, in memory of Espedito S. Capizzi, M.D.; **Lancaster**, including a memorial to Jeremiah J. Sullivan, M.D.; **Lawrence**, a gift in memory of Mrs. John B. Barrett, and one honoring past presidents of the county auxiliary; **Lycoming; Luzerne**, honoring Mrs. Fronduti; **Luzerne Hazleton Branch; Mifflin-Juniata; Monroe; Northampton; Northumberland; Warren; Wayne-Pike**; and **York.**

Other benefactors were the Montgomery County Medical Society, in memory of Damon B. Pfeiffer, M.D.; Mrs. Edgar S. Buyers, in memory of Harvey Bartle, M.D.; Dr. and Mrs. Willis A. Redding, in memory of Mrs. William Baurys; and Dr. and Mrs. Weir L. King, in memory of Mrs. Robert A. Deach.

PMS Commission on Disaster Medical Care Advises

A Second Medical Bag for Emergency Use

Any physician may suddenly find himself faced with an emergency situation—one which the items he carries in his conventional kit might not adequately meet.

Writing in *The Bulletin* of the Alameda-Contra Costa Medical Association (California), **Wayne P. Chesbro, M.D., a member of the AMA Committee on Disaster Medical Care,** describes the special auxiliary bag he has fitted out for emergency use, and lists its contents.

The container should be of metal, to withstand hard use, inclement weather, and frequent shock; when fully loaded, the kit's weight should not exceed twenty pounds; it should remain stable when placed on rough terrain such as a gravel berm; and its contents should be readily accessible.

Dr. Chesbro selected a "fishing-tackle-type" metal toolbox 10½ inches high, 8½ inches wide, and 16½ inches long. Fully opened, it reveals 85 percent of its contents.

Included in the supplies are the following:

Bandages, tape, etc.: 6 gauze bandages 3 x 360 inches—5, 12 x 360; 2 triangular bandages, each with two safety pins; 1 elastic bandage, rediflex deluxe rubber, 3-inch—2, 4-inch; 1 box band-aids (100); 1 eye-patch with elastic band; 8 oversponges (2 to a package), 4 x 3 inches, sterile—9, 4 x 4 inches; 2 composite paddings, 8 x 7½ inches, sterile—2, 5 x 9 inches; 2 D-unit drainage dressings (large), sterile; adhesive tape—3 rolls ½-inch, 1, 3-inch; scotch tape. 1 roll 1-inch.

Towels, swabs, etc.: 8 paper towels; 6 Zephiran towelettes; 6 preptic isopropyl alcohol 70% swabs; ½ package cotton-tipped applicators; 1 ounce cotton, sterile, absorbent.

Sutures: 6 4-0 ethilon with small-curve atraloc needle, FS-2 sterile; 6 2-0 ethilon with large-curve atraloc needle, sterile; 6 200 plain catgut, individual envelopes, sterile.

Instruments: Knife, Bard Parker, No. 3 handle, No. 15 blade; 1 needle holder, medium; 1 Adson tissue forceps; 2 mosquito hemostats; 1 tissue scissors; 1 bandage scissors (medium size); 4 examination gloves, sterile, plastic; 1 plastipak sterile disposable syringe with needles 5 cc., 20-gauge, 1-inch—6 with needles 2½ cc., 25-gauge, ⅝ inches.

Pharmaceuticals: 4 ounces isopropyl alcohol 70%; 2 ounces pHisoHex; 6 ampules adrenalin 1:1,000; 4 ampules vitamin K .001; 2 ampules caffeine sodium benzoate gr. VIISs each; 10-cc. vial Aramine solution 1%, .010 mgm./cc.; 10-cc. vial Decadron phosphate 1.m., 1.v. use (.004 cc.); 30 cc. demerol HC1 vial, 0.050 cc.; 1 Xylocaine 1%, 5-cc. vial—1, 1% with adrenalin 1:100,000, 50-cc. vial; 50 phenobarbital tabs, gr. ¼; 20 cc.-vial morphine sulphate, gr. ¼/cc.; 1 4-ounce tube sterile lubricant jelly.

Miscellaneous: 36 safety pins, medium size; 6 diagnostic-information cards 3 x 4 inches (attach to patient's clothing with safety pin or scotch tape); 1 skin-marking pencil (red); 1 redi-splint emergency pressure splint, full leg—1, full arm; 1 resuscitube, adult—1, child; 1 flashlight, 2-cell D batteries (with holding ring); 1 Boy Scout knife.

Dr. Chesbro stresses the importance of checking the supplies after each emergency, replenishing them as necessary and introducing new products whenever this seems advisable.

The standard kit is used in conjunction with the emergency one, with stethoscope and other "routine" items quickly available.

M.D. 'TOOL' BOX—Well outfitted with medical and surgical supplies and ready in seconds to handle an emergency is this kit which, with his conventional bag, the physician can carry as standard equipment in his car.

For County Societies

This article is presented at the request of the PMS Commission on Disaster Medical Care, of which Jack C. White, M.D., is chairman. Reprints are being made, and will be sent to all chairman of Disaster Medical Care groups in county medical societies throughout Pennsylvania.

WELCOME, NEW MEMBERS!

These M.D.'s have joined the State Society in recent months:

BERKS COUNTY:

Stanley F. Kulaga, Jr., 342 Franklin Street, West Reading 19602.

BUCKS COUNTY:

John S. Bryan, Jr., 573 North Main Street, Doylestown 18901.

Kenneth R. Haslam, Merck Sharp & Dohme Research Laboratories, West Point 19486.

DELAWARE COUNTY:

Henry E. Clare, 219 South Ithan Avenue, Rosemont 19010.

Leon H. Warren, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.

MONTGOMERY COUNTY:

Richard E. Eshbach, Cressman Road, Harleysville 19438.

Harry J. Kenworth, Jr., York and Keith Roads, Abington 19001.

WESTMORELAND COUNTY:

Frank J. Altomare, Jr., 2750 Cleveland Drive, Lower Burrell 15064.

Ralph M. Costello, 1067 Lakeview Drive, Latrobe 15650.

Frank M. Davie, Route 2, Leechburg 15656.

Larry S. McClung, 304 Glenmore Drive, Lower Burrell 15069.

Thomas P. Petrick, R. D. 5, Box 256, Beechwood Drive, Latrobe 15650.

William J. Stept, 1121 Parkview Avenue, New Kensington 15609.

WYOMING COUNTY:

William R. Host, Laceyville 18623.

YORK COUNTY:

Joachim F. H. Friedrich, 2471 South Queen Street, York 17402.

Gilmore M. Rothrock, 817 South George Street, York 17403.

News of Projects

In glaucoma screening cosponsored by the Jefferson County Medical Society, 31 incipient cases were found among 1,563 persons evaluated. Under the aegis of the Lehigh County Society, 68,438 individuals received the second round of tetanus toxoid, the first round having been administered to 86,762 persons in March.

- Two fellowships to train teachers of family medical practice have been established at the University of Kansas School of Medicine under a grant from the American Academy of General Practice Foundation.

Golden Nuggets

"I feel that the workshop, clinical rounds, and luncheons with instructors were all very worthwhile.* I was especially pleased with two programs that I attended: the orthopedic workshop, which was very practical and informative to physicians meeting orthopedic problems, and the luncheon meeting with the experts, on "Intrauterine Contraceptive Devices," [which] was very enlightening, with the exchange of a great deal of information among all members present.

"I wish to commend you and your committee on the excellent convention program, and I am looking forward to the forthcoming meeting in Pittsburgh."

Neal D. VanMarter, M.D., Erie,
General Practitioner on Hamot and St. Vincent's Hospitals' staffs.

* Similar courses are being prepared for the 1966 TEACHING INSTITUTE to be held October 9-11 in Pittsburgh.

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X-ray Group Names Slate

Officers of the Pennsylvania Radiological Society for 1966-7 are as follows (all M.D.'s):

President, **Frederick R. Gilmore,** Clearfield; president-elect, **John L. Williams,** Danville; first vice-president, **Roderick L. Tondreau,** Meadowbrook; second vice-president, **Gilbert H. Alexander,** Pittsburgh; secretary, **T. Frederick Weiland,** Grove City; treasurer, **Frank R. Kinsey,** Lewistown; editor, **Marlyn W. Miller,** Altoona; councilor to the American College of Radiology, **Newton Hornick,** Pittsburgh; alternate councilor, **Richard R. Hoffman,** Lebanon.

Board of directors—one-year term, **George E. Fissel,** Williamsport, **C. Richard Perryman,** Pittsburgh, and **James G. Whildin,** Bethlehem; two-year term, **Paul W. Eyler,** Lancaster, **Elliott C. Lasser,** Pittsburgh, and **C. Jules Rominger,** Philadelphia; three-year term, **David A. Huot,** Pittsburgh, **Herman C. March,** Philadelphia, and **Fred S. Winter,** Sayre.

American Medical Association

BASIC FACTS

(Fifth in a series presenting background information on the AMA. Source: AMA News Department.)

Scientific Meetings

The AMA's Annual and Clinical conventions, held each June and November, are the most important postgraduate medical study sessions in the world. They encompass hundreds of scientific lectures and exhibits, as well as hundreds of industrial exhibits illustrating new drugs, equipment, and books; also featured are outstanding medical motion pictures and special color television presentations.

In addition, seminars, symposia, and other postgraduate meetings on specific topics are held throughout the year.

Councils, Committees

One of the AMA's greatest contributions to medicine is in gathering, correlating, evaluating, summarizing and channeling to its members, data on new products, findings, and methods.

Aided by the headquarters staff in Chicago, 700-800 leading physicians from throughout the nation serve (without pay) on AMA scientific councils and committees.

Councils deal with subjects such as drugs, nutrition, medical education, postgraduate programs, medical service, voluntary health agencies, mental health, national security, occupational health, rural health, legislative activities, constitution and bylaws, and judicial matters.

There are committees on cutaneous health and cosmetics, medical aspects of automotive safety, medical aspects of sports, medical practices, rating of mental and physical impairment, rehabilitation, nursing, medicolegal problems, medicine and religion, aging, federal medical services, indigent care, nuclear medicine, insurance and prepayment plans, maternal and child care, medical facilities, alcoholism and addiction, a disaster medical care, aerospace medicine, and others.

In addition, there are 17 residency review committees covering the various specialties, plus liaison committees, and advisory committees in various fields

Postgraduate Programs

The Council on Postgraduate Programs is responsible for the entire scientific framework of the AMA, including motion pictures and scientific exhibits at Annual and Clinical conventions. It works with the 22 specialty sections to provide an integrated postgraduate medical education program for physicians.

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ASSOCIATES WANTED

Physician for General Practice—Full associate; immediate occupancy of office. No initial investment. Rental house available. Central Pennsylvania location; excellent hunting, fishing, boating. Write Department 427, Pennsylvania Medicine.

Associate—In well-established northeast Philadelphia general practice (90 percent internal medicine). Work schedule, remuneration, and permanent association open. Write Department 473, Pennsylvania Medicine.

FOR RENT

Suites—In new, fully air-conditioned professional building in a rapidly growing Pittsburgh suburb. The area definitely needs general practitioners, pediatricians, internists, and dentists. Contact Norwin Medical Arts Building, 101 Clay Pike, Irwin, Pa. 15642.

Doctor's Suite Available—Two rooms, lavatory. Modern equipment. Harvey's Lake, Pa., winter and summer resort near Wilkes-Barre. An ideal location and time to start. Great potential. Write Department 470, Pennsylvania Medicine.

Immediately Available—In northeast Philadelphia, air-conditioned office, fully equipped for general practice, but adaptable to modification for specialty practice. Owner left busy practice for residency. Write Department 472, Pennsylvania Medicine.

FOR SALE

Well-Equipped Offices—Established 34 years; eye, ear, nose, and throat practice. Good location in central Pennsylvania, near accredited modern hospital. For sale or rent, due to recent death. Contact Mrs. Harry G. Shaffer, 225 Cherry Street, Clearfield, Pa. 16830; telephone 1-814-765-4313.

INTERNS, RESIDENTS WANTED

Psychiatric Residencies—Available in three-year approved program; 1,600-bed hospital with affiliated child psychiatry, psychosomatic medicine, and mental hygiene clinic. Supervised individual and group psychotherapy; outstanding neurology services; research orientation. Regular resident, $4,480-$6,260, career resident, $8,961-$12,510 per annum. Nondiscrimination in employment. Write Director, Veterans Administration Hospital, Coatesville, Pa. 19320.

PARTNER WANTED

Partner—General practice, with obstetrics. Good staff privileges. In Philadelphia. Wonderful opportunity. Write Department 477, Pennsylvania Medicine.

PHYSICIANS WANTED

For the Price of a New Car—Take over my nice, comfortable, small-town practice. Prosperous town located one and one-half hours from Washington, D.C., and Baltimore, in lovely section of southeastern Pennsylvania. New 70-bed open-staff hospital; 100 percent collection rate; all new equipment. Financing available. Rich community life. I am going back to school. Write Department 461, Pennsylvania Medicine.

General Practitioner—Or specialist, for any one of several attractive Pennsylvania communities. Assorted possibilities in regard to facilities, fringe benefits, citizen appreciation, local status, and monetary rewards. Many locations available in prime recreation areas, and a good number within a reasonable distance of large cities. Apply to Physician Placement Service, Pennsylvania Medical Society, 230 State Street, Harrisburg, Pa. 17105.

House Physician—For 100-bed community hospital 25 miles from Philadelphia. Five-day week, no nights. Pennsylvania license required. Salary, $300 per week, plus benefits. Contact Mr. C. M. Bogia, The Phoenixville Hospital, Phoenixville, Pa. 19460.

Emergency Room Physician—Member of an emergency team, 500-bed general hospital. Contact Administrator, St. Vincent Hospital, Erie, Pa. 16502.

Anesthesiology Needs More Physicians—University Health Center of Pittsburgh offers one-year residences meeting requirements for certification by American College of Anesthesiologists, and part-time anesthesiology practice. Also, two-and three-year residencies for Board certification. Experience with all anesthetic agents and techniques. Consultation work with emphasis on emergency care and intensive care. For information, contact Peter Safar, M.D., University of Pittsburgh School of Medicine, Pittsburgh, Pa. 15213.

Emergency Room Duty—From 2 to 10 P.M. daily. Rotating certain weekends. Maximum, 54 hours per week. Pennsylvania license, or eligibility through reciprocity. Salary, $15,000 per annum. Write Administrator, Butler County Memorial Hospital, Butler, Pa. 16001.

Two Generalists—For association with physician. Practice good medicine in a prosperous community with ideal "on call" setup. New office building designed for efficient practice, with modern facilities and equipment. No investment required. Start on a salary plus bonus, or expense sharing; later, partnership. Write Department 465, Pennsylvania Medicine, or call 1-717-866-2321.

Orthopedic Surgeon Wanted—Associate for well-established orthopedic practice in eastern Pennsylvania. First year, salary plus percentage. Partnership after one year. Board eligibility required. University hospital training preferred. Write Department 471, Pennsylvania Medicine.

Anesthesiologist—Board eligible, or certified, to head department in 140-bed southwestern Pennsylvania J.C.A.H. hospital near University of Pittsburgh Medical Center. Completely new, modern facilities. Attractive remuneration. Excellent winter and summer recreational facilities. Write Department 468, Pennsylvania Medicine.

House Physician—Full time, for 200-bed hospital. Pennsylvania license required. Salary $15,000 per year, plus maintenance. For details, contact Norman W. Skillman, director, The Chester County Hospital, West Chester, Pa. 19380.

House Physician—To cover emergency and surgery. Must have Pennsylvania license. Modern, well equipped hospital 25 miles from Philadelphia. Salary open. Write Department 466, PENNSYLVANIA MEDICINE.

Psychiatric Physicians—Expanding services in one of Pennsylvania's outstanding state hospitals require three psychiatric physicians in Harrisburg. This is a 2,200-bed hospital with increasing community emphasis. **A psychiatric physician III**—$15,387-$19,664—will direct outpatient service, which screens for preadmission and outpatient treatment. Incumbent also directs psychiatric evaluation for court and community agencies. Board certification is required, and four years of psychiatric experience (two of which must have been in an administrative capacity). **A psychiatric physician III**—$15,387-$19,664—will coordinate a continued-care unit for women—multidiscipline staff, with emphasis on rehabilitation. The position requires Board certification and four years of psychiatric experience (two of which must have been in an administrative capacity). **A psychiatric physician II**—$13,979-$17,839—who will work as a staff psychiatrist in the outpatient unit. Psychiatric residency and two additional years of psychiatric experience are required. These positions offer excellent opportunities for personal and professional growth, with liberal fringe benefits. Write H. C. EATON, M.D., Superintendent, Harrisburg State Hospital, Harrisburg, Pa. 17105.

Physician—Staff opeining at the Ritenour Health Center of The Pennsylvania State University. Outpatient dispensary, 60-bed hospital, enrollment approximately 20,000. Pleasant rural community in scenic central Pennsylvania. Write H. R. GLENN, M.D., Medical Director, 304P. Old Main Building, University Park, Pa. 16802. An equal opportunity employer.

House Physician—Pennsylvania license, for 100-bed general hospital suburban Philadelphia; position now open. Starting salary, $15,000. Contact ADMINISTRATOR, Haverford Hospital, Havertown, Pa. 19083.

General Practitioners—For medical care of mentally ill. Salary, $10,452 to $16,170, depending on qualifications. Forty hour week; paid vacation; holidays; fringe benefits. Pennsylvania license required. Write R. F. DOWNEY, M.D., Superintendent, Mayview State Hospital, Bridgeville, Pa. 15017.

House Physician—For 143-bed general hospital located in a residential section about fifteen miles south of Philadelphia. Pennsylvania license required. An excellent introduction to a community with practice opportunities. Contact H. ALAN HUME, M.D., Taylor Hospital, Ridley Park, Pa. 19078.

Anesthesiologist—Board eligible or certified, Pennsylvania licensure. Fully J.C.A.H.-accredited, 171-bed voluntary general hospital in western Pennsylvania; hospital in planning phase for expansion program. Present anesthesia staff consists of five certified nurse anesthetists. Opportunity to work with board certified physicians in all surgical specialties. Financial arrangements negotiable. Contact R. L. ENGEL, Administrator, Armstrong County Memorial Hospital, Kittanning, Pa. 16201.

Wanted—In sunny southern California; an M.D. who is seeking semi-retirement. Fee-for-service basis. Write Department 475, PENNSYLVANIA MEDICINE.

Retired and/or Part-time Physician—Live in; gracious accommodations; salary open; duties and responsibilities very limited; cover hospital devoted to alcoholism treatment and research. Five nights a week. Near Philadelphia. Write Department 476, PENNSYLVANIA MEDICINE.

Physician—As medical officer for chronic disease and physical medicine and rehabilitation services. Program affiliated with university-based regional research and training center. The 160-bed modern facility's specialized medical programs include pulmonary disorders, rheumatology, and peripheral vascular diseases. Salary, $10,000-$12,000. Liberal increment policy and fringe benefits. Applicant must be eligible for Pennsylvania licensure. Contact CARL LEVENSON, M.D., Medical Director, Moss Rehabilitation Hospital, Twelfth Street and Tabor Road, Philadelphia, Pa. 19141.

POSITION WANTED

Locum Tenens—August. Prefer internal medicine, but will do general practice, without obstetrics. Prefer Philadelphia area, but will consider other state areas. Previous practice experience, including recently-completed three-year medicine residency. Write DEPARTMENT 474, PENNSYLVANIA MEDICINE.

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In My Opinion . . .

Underutilization

The words "utilization" and "overutilization" are in the air. Each hospital and each extended care facility must have a utilization committee to prevent overutilization of the scarce, expensive bed. One cannot with either logic or in good conscience deny the fact that we can continue to reduce the hospital stay for many of our patients, without affecting their convalescence. On the other hand, we should not let this trend keep us from bringing the maximum benefits of hospital care to our patients.

There is a tendency to believe that a hospital is not needed for diagnosis unless the illness is bed-confining or will lead to a surgical intervention. When a hospitalized patient has an illness which may respond to medicinal and dietary therapy, many suggest that he should be summarily sent out of the institution. Utilization committees determine whether, in the terms of the insurance contract, the patient's hospital stay could have been shortened, or even if all the work could have been performed in outpatient status. Moreover, an insurance commissioner determines what the contract can be.

The basic philosophical laws which underlie the rules of the insurance commissioner and which define the objectives of the utilization committee recognize that all medical care, all hospitalization, and all health plans are directed to the patient's welfare. If this concept is meticulously followed by the physician and the surgeon, then there should be no conflict with insurance contracts nor with policing committees.

There is destined to be a change in the attitudes of physicians, patients, and insurance carriers concomitant with the governmental redefinitions in the new laws covering our aged population. We already see a noticeable effect upon the insurance carriers from the concepts of the "reasonable cost" which are referred to in Public Law 89-97. Fee schedules might be maintained by insurance companies, but they will obviously be affected by the "reasonable cost" concept. Whereas the overuse of hospital facilities will still be frowned upon, the underuse of hospitals will also come under scrutiny by study groups.

Hospitalization is not the most expensive part of illness. Improperly diagnosed and poorly treated disease is costly in sociological as well as in medical terms. Analagous is the most expensive laboratory test performed—the diagnostic test for syphilis. As an individual test it is very inexpensive, but in the number of positive cases it yields, it is tremendously costly. No one would suggest that it be deleted from a routine workup, as the cost of missing a patient with syphilis would be far greater monetarily as well as in human suffering. Similarly, a hospital workup is necessary for adequate examination of many body functions. These cannot be deleted because of a utilization problem. Many radiologic studies can be done well only on patients controlled by hospital preparation.

The answer, while simple, needs much study. If we think that the diagnosis and/or the treatment is best carried out in the hospital, we should so direct it, no matter what the patient's insurance status. And we must defy anyone who would have us do otherwise. Study is needed, as there are no specific criteria by which one can judge whether or not a patient is ready for hospital release. There are so many variable factors above and beyond the stage of convalescence. Motivation on the part of the patient is most important, as are the home conditions.

The patient is the only reason for a hospital, for physicians, and for utilization committees. If such committees recognize that their objective is the betterment of patient care, not the saving of hospital or insurance funds, they will fill a need which cannot be disputed.

William C. Beck, M.D., *Sayre.*

P.R.N.

Rare indeed is the publication that is free of advertisements. Advertising greets us at every turn; it is part of our way of life. Much of it is good, but in the average publication (as on billboards, radio, or television), much of it is mediocre—or worse.

It is easy to be irritated by trash such as the drama of the poor fellow whose family persists in running off with his deodorant. And as for those mechanized stomachs in which acid drip, drip, drips—! Such idiocy tends to establish, in many of us, built-in barriers to *all* advertising. We develop an "ad allergy," simply because some product promotions are unpleasing, or are an insult to one's intelligence.

But our revulsion should be selective, permitting us to benefit from worthwhile advertising material. Pennsylvania Medicine's advertisements, geared to an educated and "ad-sophisticated" audience, are notably tasteful, informative, and to-the-point.

Granted, a total absence of advertising in our pages—with substitution of medical articles and news—might please many readers far more than the most engaging advertisements could ever do.

But not only do our product features underwrite a portion of the expense of producing our journal, they also serve a definite purpose in medical practice. Part of our publication's reason for being is to keep the profession abreast of new products. And part of our policy is to exclude advertising matter that falls short of the rigid standards of the profession and of the AMA and PMS.

Joseph F. Sadusk, Jr., M.D., writing in *Current Therapeutic Research* (May, 1965), states that "Practicing physicians receive a substantial part of their education concerning drugs through the medium of prescription drug advertising. This indeed is basic, and underlies the federal law which places responsibility on the advertising industry to present factual and undistorted information to the physician. . . ."

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*Marks, V., and Dawson, A.: Brit. M. J. *1*:293, 1965.

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AUGUST, 1966

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PENNSYLVANIA MEDICINE

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A promising new adjunct to x-ray and endoscopy, gastrocamera, skillfully used, can add a valuable dimension to diagnosis – Page 29

A MAN OF STATURE IN AN ERA OF GROWTH

Caspar Wistar greatly influenced medical education and cultural life in early America and throughout many decades following his death – Page 66

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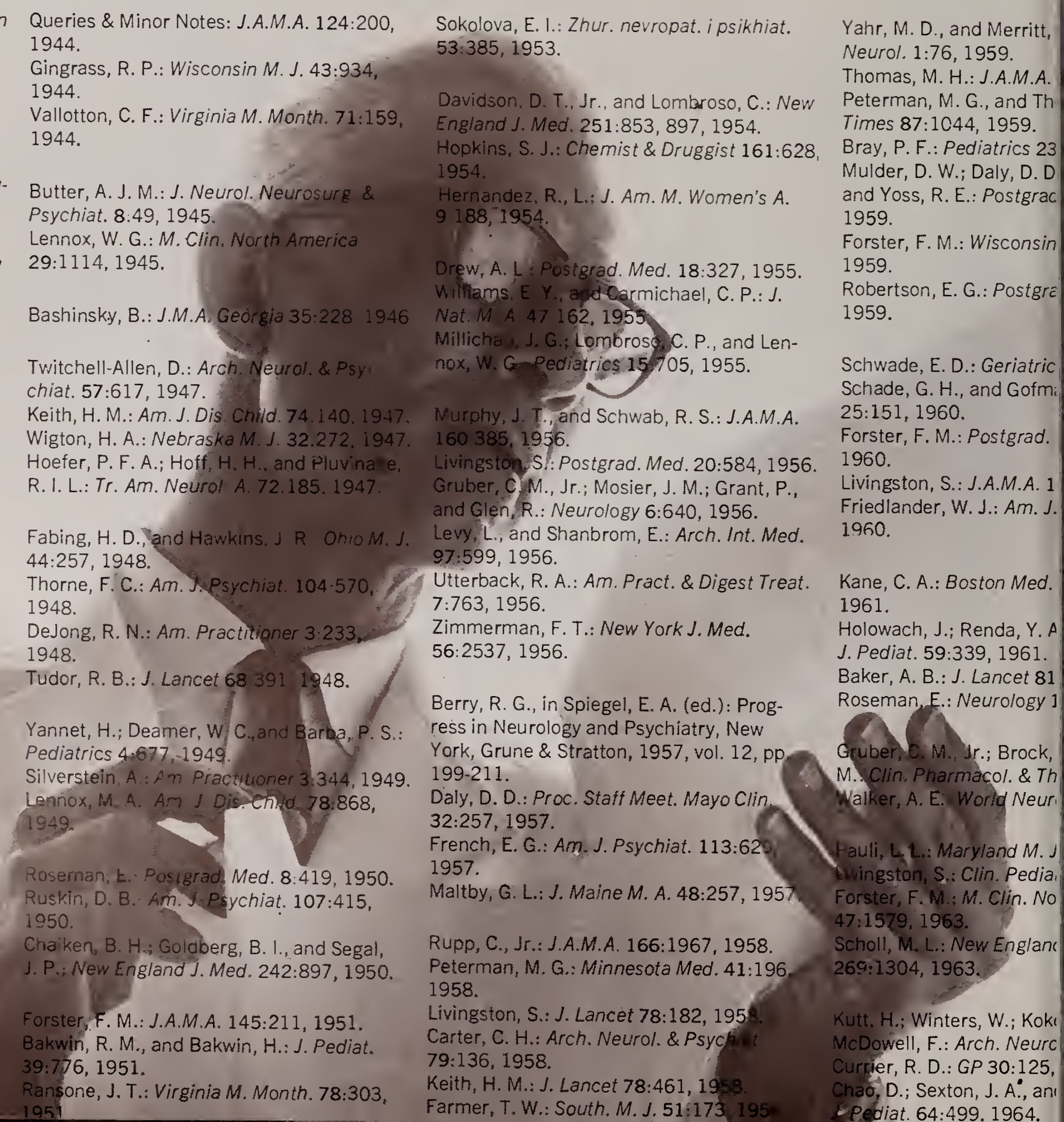

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News
HIGHLIGHTS

August, 1966

MEDICARE'S FIRST MONTH

- "It would be folly to expect that a law with the scope of medicare will be without problems," said Secretary of Public Welfare Max Rosenn. But difficulties that have arisen during medicare's first month of operation "would have been multiplied many times without the active support of the Pennsylvania Medical Society, the Pennsylvania Osteopathic Association, and the Hospital Association of Pennsylvania," he emphasized. Where the Department of Public Welfare has been involved in medicare areas, "greatest cooperation" of physicians, through their professional associations, has aided implementation, he said. Matthew K. Gale, executive vice-president of Pennsylvania Blue Shield, echoed Secretary Rosenn's words of praise.

- One area of confusion, however, is in the almost universal reaction among Pennsylvanians sixty-five years old and older, "Oh, my! I thought medicare covered this!" Physicians questioned in 16 key areas of the state reported rude shocks to the pocketbook and the sense of security of many of their patients, who are uncertain about the "deductible" and "co-payment" aspects of Parts "A" and "B." And it is the medical profession that catches the brunt of these patients' ire.

Dr. Hudson Succeeds Dr. Appel as AMA President

As the presidential year ended for James Z. Appel, M.D., Lancaster, the duties of "top man" among AMA officers devolved upon Charles L. Hudson, M.D., Cleveland. Dr. Hudson was installed during the AMA's Chicago convention in late June.

The new president served for five years as a member of the AMA House of Delegates, and of the AMA Board of Trustees, prior to being named president-elect in 1965. He is a past president of the Ohio State Medical Association, of the Cuyahoga County Medical Society, and of the Academy of Medicine of Cleveland. He has held many other offices and responsibilities, and has devoted thirty-two years to specialization in internal medicine.

DR. HUDSON

HERSHEY'S FIRST ACADEMIC HEAD ■ Bryce L. Munger, M.D., formerly of the University of Chicago College of Medicine, is the first academic department head named at The Milton S. Hershey Medical Center of The Pennsylvania State University. In announcing the appointment, George T. Harrell, Jr., M.D., director of the Center and dean of the College, stated that Dr. Munger's first responsibility will be to organize his department of anatomy so as to be ready for classes in the fall of 1967.

THIS MONTH ■ Fifteenth Annual Health Conference, at The Pennsylvania State University, August 7-11.

NEXT MONTH

A GOOD RESULT IN PANCREATIC CANCER

Three years after treatment with 5-fluorouracil, the patient remained free of symptoms of metastatic carcinoma of the pancreas.

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For peptic ulcer, gastric hyperacidity, gastritis

Each WinGel tablet or teaspoon (5 ml.) contains 410 mg. of combined, highly reactive, short polymer, aluminum and magnesium hydroxides **stabilized with hexitol.**

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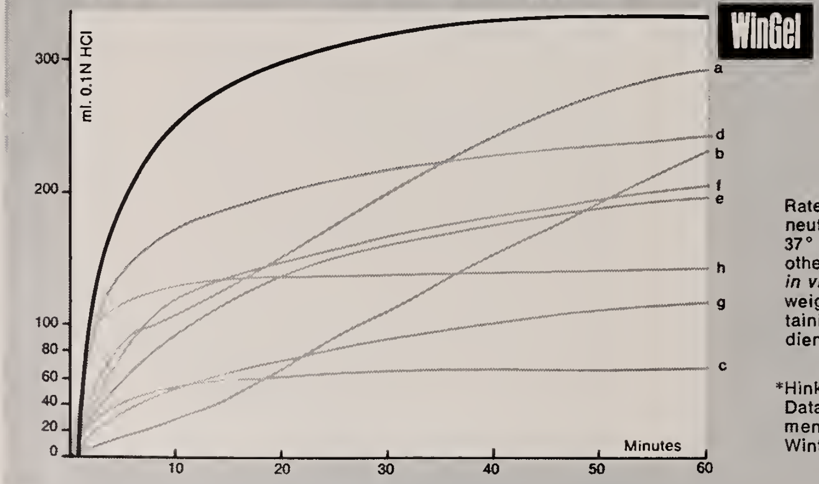

Rate of 0.1N hydrochloric acid neutralization at pH 3.5 and 37° with WinGel and eight other leading antacid tablets—*in vitro*. Samples equaled the weight of tablet material containing 1.0 Gm. active ingredients.*

*Hinkel, E. T., Jr. (New York): Data in the files of the Department of Medical Research, Winthrop Laboratories.

Dosage: Peptic ulcer or gastritis—from 2 to 4 teaspoons of WinGel liquid or 2 to 4 tablets chewed or allowed to dissolve in the mouth every two to four hours. **Gastric hyperacidity**—2 tablets or teaspoons about ½ to one hour after meals as needed; children from 7 to 14 years of age, 1 or 2 tablets or 1 or 2 teaspoons of liquid as needed.

How Supplied: Liquid in bottles of 8 fl. oz. and 1 pint. **Tablets** in cellophane strips, boxes of 50 and 100. (One teaspoon of WinGel liquid is equivalent to one WinGel tablet in acid-combining capacity.) WinGel, trademark reg. U.S. Pat. Off.

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AUGUST, 1966 VOLUME 69 NUMBER 8

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STENOSING SMALL-BOWEL ULCERATION *Drs. John E. Hopkins* and *J. Montgomery Deaver*

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A clinicopathological conference at Presbyterian-University Hospital, Pittsburgh. Page 41.

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Anatomy of
Low Back Pain #1

The human spine is not engineered for prolonged sitting at desks, pianos, typewriters and drafting boards. The stresses set up by the heavy, forward-tilted head and trunk, balanced precariously on an insufficient base, result in strain of the dorsal musculature, particularly at the low lumbar level.

The unusual muscle-relaxant and analgesic properties of 'Soma' make it especially useful in the treatment of low back sprains and strains. 'Soma' is widely prescribed ☐ **to relieve pain** ☐ **to relax muscles** ☐ **to restore mobility.**

Indications: 'Soma' is useful for management of muscle spasm, pain, and stiffness in a variety of inflammatory, traumatic, and degenerative musculoskeletal conditions. It also may act to normalize motor activity in certain neurologic disturbances.

Contraindications: Allergic or idiosyncratic reactions to carisoprodol.

Precautions: 'Soma', like other central nervous system depressants, should be used with caution in patients with known propensity for taking excessive quantities of drugs and in patients with known sensitivity to compounds of similar chemical structure, e.g., meprobamate.

Side Effects: The only side effect reported with any frequency is sleepiness, usually on higher than recommended doses. An occasional patient may not tolerate carisoprodol because of an individual reaction, such as a sensation of weakness. Other rarely observed reactions have included dizziness, ataxia, tremor, agitation, irritability, headache, increase in eosinophil count, flushing of face, and gastrointestinal symptoms.

One instance each of pancytopenia and leukopenia, occurring when carisoprodol was administered with other drugs, has been reported, as has an instance of fixed drug eruption with carisoprodol and subsequent cross reaction to meprobamate. Rare allergic reactions, usually mild, have included one case each of anaphylactoid reaction with mild shock and angioneurotic edema with respiratory difficulty, both reversed with appropriate therapy. In cases of allergic or hypersensitivity reactions, carisoprodol should be discontinued and appropriate therapy initiated. Suicidal attempts may produce coma and/or mild shock and respiratory depression.

Dosage: Usual adult dose is one 350 mg. tablet three times daily and at bedtime.

Supplied: Two Strengths: 350 mg. white tablets and 250 mg. orange, two-piece capsules.

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THIS MONTH

Diagnosis Rule in Medicare Changed

Medicare regulations have been modified to allow the physician to omit divulging a diagnosis when to do so might adversely affect the patient. The Bureau of Health Insurance made the change shortly before medicare took effect. Previously, the Bureau had maintained that in every instance of Part B services, the diagnosis would have to be included.

Said Arthur E. Hess, director of the Bureau: "The instructions on the back of form SSA-1490" (sent to potential beneficiaries and included in the *Medicare Handbook)* "call for the diagnosis if the physician completes Part II, whether or not he accepts an assignment.

"In such cases, the physician would normally enter the diagnosis in Item 7D (or give equivalent information on an attached itemized statement). He could then forward the form directly to the Part B intermediary so that the patient would not see the diagnosis.

"However, if the physician believes the inclusion of the diagnosis might be undesirable, *he may omit it or use a standard code.* In all cases, though, the services furnished the patient must be sufficiently itemized to permit the intermediary to determine the reasonable charges."*

The direct billing procedure would entail the following information: (1) date of each service, (2) place where service was rendered, (3) sufficient data on services for determination of reasonable charges, and (4) the charges.

The patient is responsible for submitting the receipted bill to the intermediary to obtain reimbursement for 80 percent of the determined reasonable charges for covered services, after the $50 deductible has been met.

Markle Scholars Chosen

Pennsylvania M.D.'s named as 1966 Markle Scholars in Academic Medicine are: **Edward D. Coppola,** Hahnemann Medical College; **Thomas E. Piemme,** University of Pittsburgh School of Medicine; and **Paul D. Zimskind,** Jefferson Medical College. Like the twenty-two other recipients of Markle Awards in the United States and Canada, all three are medical school faculty members. Under the grants, Dr. Coppola will work in the area of surgery, Dr. Piemme in medicine, and Dr. Zimskind in urology.

Each M.D. selected receives $6,000 per year for five years, paid to the medical school at which he will teach, conduct research, or do administrative work. Since 1948, the annual grants have totalled more than $12,800,000, and have helped support 430 scholars in 88 medical schools.

The late John Markle, Pennsylvania industrialist, established the grants in 1927, "to promote the advancement and diffusion of knowledge . . . and the general good of mankind."

PHS M.D.'s Head for Viet

Seven U.S. Public Health Service medical officers will go to South Vietnam shortly to serve on the Public Health Service Surgical Team Project.

The officers will work in civilian hospitals in Da Nang and Nha Trang.

Since 1962, the Public Health Service has been supplying American physicians and surgeons, technologists, and nurses to make up surgical teams in provincial hospitals within these areas.

Michael D. Reynolds, M.D., Somerset, who is completing internship at the Hospital of the Medical College of Virginia, will serve as a junior medical officer on one of the teams.

Dr. Reynolds was one of the first recipients of an Educational and Scientific Trust full-tuition scholarship.

PHOTO FINISH—Robert R. Schenck, M.D., California, Pennsylvania, right, receives blue ribbon award from Richard H. Roberts, M.D., Summit, New Jersey, representing CIBA Pharmaceutical Company. Dr. Schenck was cited for his outstanding entry in CIBA's Vioform-Hydrocortisone Photographic Contest for physicians.

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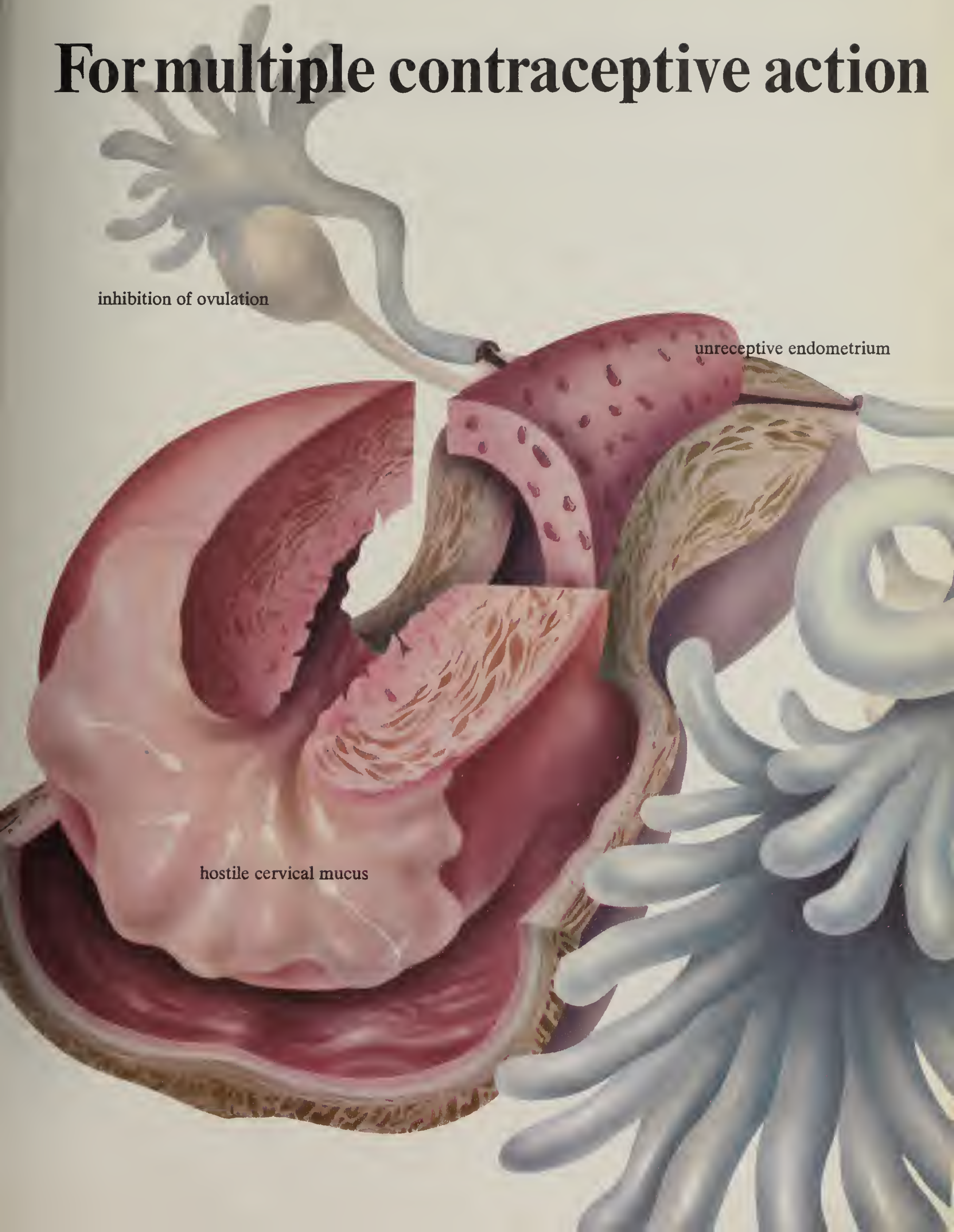
*(Blue Shield at the present time has no plans to adopt a code.) Editor's note.

For multiple contraceptive action



Norinyl® tablets

(norethindrone 2 mg. c̅ mestranol 0.1 mg.)

multiple action that has produced a record of unexcelled effectiveness

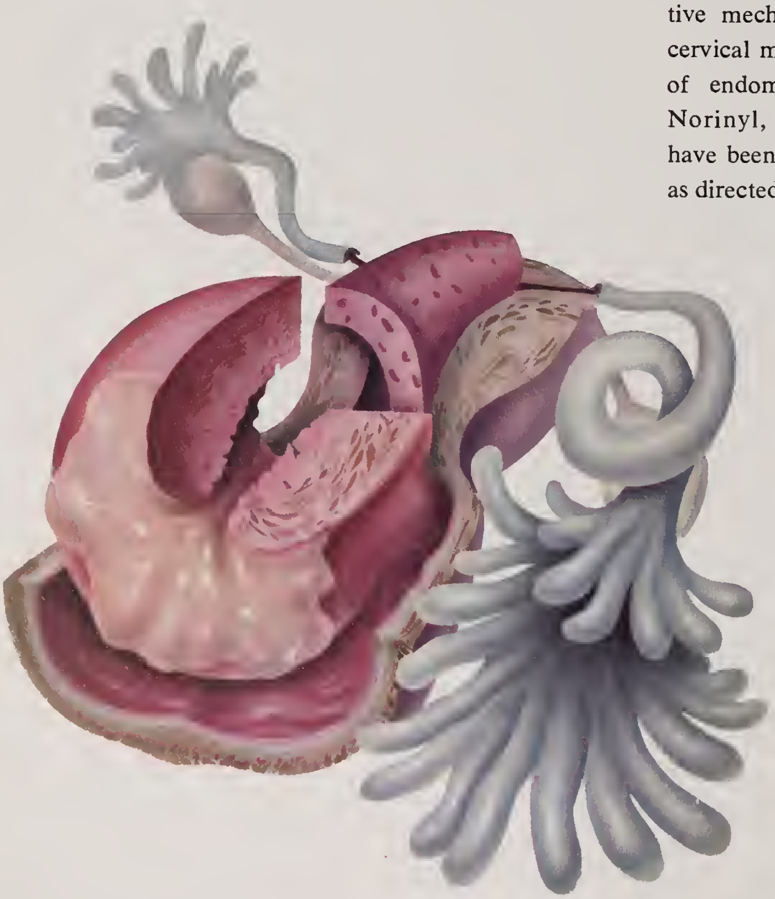
inhibition of ovulation by means of 2 time-proved hormonal agents

production of a cervical mucus hostile to sperm motility and vitality

creation of an endometrium unreceptive to egg implantation

no unplanned pregnancies

Norinyl provides multiple action for maximum assurance of success. It does not depend on ovulation inhibition alone for contraceptive effectiveness. The mechanism of action of combined hormonal therapy results in ovulation inhibition reinforced by other protective mechanisms, including a hostile cervical mucus[1-13] and an acceleration of endometrial changes.[1-3,7-16] With Norinyl, no unplanned pregnancies have been reported to date when used as directed.



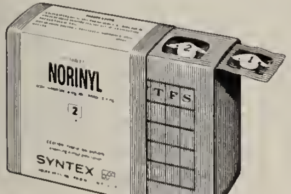
plus important supportive benefits that help her through those critical early months of oral contraception

low incidence of side effects

Low incidence of BTB and spotting, nausea and amenorrhea tends to minimize side effect problems and increases patient cooperation.

no confusion about dosage

An unbreakable "confusionproof" package makes it easy to adhere to prescribed dosage schedule: individually sealed tablets numbered from 1 through 20 *plus* monthly calendar record enables patient to double-check dosage intake by day and corresponding tablet number.



Contraindications: Thrombophlebitis or pulmonary embolism (current or past). Existing evidence does not support a causal relationship between use of Norinyl and development of thromboembolism. While a study which was conducted does not resolve definitively the possible etiologic relationship between progestational agents and intravascular clotting, it tends to confirm the findings of the Ad Hoc Advisory Committee appointed by the Food and Drug Administration to review this possibility. Cardiac, renal or hepatic dysfunction. Carcinoma of the breast or genital tract. Patients with a history of psychic depression should be carefully studied and the drug discontinued if depression recurs to marked degree. Patients with a history of cerebral vascular accident.

Warning: Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn.

Precautions: By May 1963, experience with norethindrone 2 mg.—mestranol 0.1 mg. had extended over 24 months. Through miscalculation, omission or error in taking the recommended dosage of Norinyl, pregnancy may result. If regular menses fail to appear and treatment schedule has not been adhered to, or if patient misses two menstrual periods, possibility of pregnancy should be resolved before resuming Norinyl. If pregnancy is established, Norinyl should be discontinued during period of gestation since virilization of the female fetus has been reported with oral use of progestational agents or estrogen. When lactation is desired, withhold Norinyl until nursing needs are established. Existing uterine fibroids may increase in size. In metabolic or endocrine disorders, careful clinical preevaluation is indicated. A few patients without evidence of hyperthyroidism had elevated serum protein-bound iodine levels, which in the light of present knowledge, does not necessarily imply hyperthyroidism. Protein-bound iodine increased following estrogen administration. Bromsulphalein retention has occurred in up to 25% of patients without evidence of hepatic dysfunction. Studies from 24-hour urine collections have shown an increase in aldosterone and 17-ketosteroids and decrease in 17-hydroxycorticoid levels. Thus, Norinyl should be discontinued prior to and during thyroid, liver or adrenal function tests. Because progestational agents may cause fluid retention, conditions such as epilepsy, migraine and asthma require careful observation. Thus far no deleterious effect on pituitary, ovarian or adrenal function has been noted; however, long-range possible effect on these and other organs must await more prolonged observation. Norinyl should be used with caution in patients with bone, renal or any disease involving calcium or phosphorus metabolism.

Side Effects: Intermenstrual bleeding; amenorrhea; symptoms resembling early pregnancy, such as nausea, breast engorgement or enlargement, chloasma and minor degree of fluid retention (if these should occur and patient has not strictly adhered to medication plan, she should be tested for pregnancy); weight gain; subjective complaints such as headache, dizziness, nervousness, irritability; in a few patients libido was increased. In a total of 3,090 patients, 2.2% discontinued medication because of nausea.

NOTE: See sections on contraindications and precautions for possible side effects on other organ systems.

Dosage and Administration: One Norinyl tablet orally for 20 days, commencing on day 5 through and including day 24 of the menstrual cycle. (Day 1 is the first day of menstrual bleeding.)

Availability: Dispensers of 20 and 60 tablets; bottles of 100.

References: 1. Council on Drugs. JAMA 187·664 (Feb. 29) 1964. 2. Bryans, F. E.: Canad Med Ass J 92:287 (Feb. 6) 1965. 3. Goldzieher, J. W.: Med Clin N Amer 48:529 (Mar.) 1964. 4. Cohen, M. R.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965. 5. Hammond, D. O.: Ibid. 6. Rice-Wray, E., Goldzieher, J. W., and Aranda-Rosell, A.: Fertil Steril 14:402 (Jul.-Aug.) 1963. 7. Goldzieher, J. W., Moses, L. E., and Ellis, L. T.: JAMA 180:359 (May 5) 1962. 8. Kempers, R. D.: GP 29·88 (Jan.) 1964. 9. Tyler, E. T.: JAMA 187:562 (Feb. 22) 1964. 10. Rudel, H. W., Martinez-Manautou, J., and Maqueo-Topete, M.· Fertil Steril 16:158 (Mar.-Apr.) 1965. 11. Flowers, C. E., Jr.: N Carolina Med J 25:139 (Apr.) 1964. 12. Goldzieher, J. W.: Appl Ther 6:503 (June) 1964. 13. The Control of Fertility. Report adopted by the Committee on Human Reproduction of the American Medical Association. JAMA 194:462 (Oct. 25) 1965. 14. Flowers, C. E., Jr.: JAMA 188:1115 (June 29) 1964. 15. Merritt, R. I.: Appl Ther 6:427 (May) 1964. 16. Newland, D. O.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965.

norethindrone—an original steroid from
SYNTEX
LABORATORIES INC., PALO ALTO, CALIF

Norinyl® tablets
(norethindrone 2 mg c̄ mestranol 0.1 mg)

for multiple contraceptive action

HONORED GUEST—Harrisburg Hospital's 1966 award in memory of the late George B. Kunkel, M.D., went to Seymour S. Kety, M.D., left, chief of the Laboratory of Clinical Science, National Institute of Mental Health, Bethesda, Maryland. Shown with Dr. Kety, an alumnus of the University of Pennsylvania School of Medicine, are Drs. Clarence E. Moore, of Harrisburg, center, and Walter P. Bitner of Camp Hill. Dr. Kunkel was a kinsman of Drs. Paul A. and W. Minster Kunkel of Harrisburg.

Latin Trip for Heart Men

John H. Moyer, M.D., professor and chairman of the department of medicine, Hahnemann Medical College and Hospital, is one of five cardiologists who will lecture in Bogota, Columbia, Lima, Peru, and São Paulo, Brazil. The group will then participate in the Twenty-second Congress of Cardiology in Recife, Brazil.

After completing these assignments, Dr. Moyer will return to São Paulo to take part in the Third International Pharmacological Congress.

'Jeff' Man SAMA Treasurer

Richard J. Flanigan, a sophomore at Jefferson Medical College, was elected treasurer of the Student American Medical Association at its sixteenth annual meeting, held in Los Angeles. Mr. Flanigan earned a Bachelor of Science degree in chemistry at St. Joseph's College, Philadelphia. Prior to entering medical school, he was a high school teacher and an industrial chemist.

Named president of SAMA was Blair Behringer, a junior at the University of Missouri School of Medicine. Vice-president is John W. Olds, a junior at the University of Tennessee School of Medicine.

FDA Reevaluates Diet Food and Supplements

A major overhaul of requirements for special diet foods and diet supplements which will affect labeling and/or content of these products has been undertaken by the Food and Drug Administration.

The new regulations will set standards for certain foods to which nutrients may be added only if they have real value.

The revisions are aimed at providing the consumer with more facts about the food he buys for weight control, dietary supplementation, and other special diet needs such as the control of salt intake.

Changes will include adoption of recommended dietary allowances as a guide to meeting nutritional needs. These allowances, based upon a report of the National Academy of Sciences, replaces the outmoded 25-year-old concept of "minimum daily requirements."

Appalachia Aid in State

Six projects in Pennsylvania are among sixteen east of the Mississippi approved for over $3 million in federal Appalachia funds; $618,858 is the total allocated for Pennsylvania.

Watershed programs are scheduled for the Mauch Chunk Creek(Carbon County), Sandy Creek (Mercer), and Marsh Creek (Tioga) areas.

Library projects will be sponsored in Pittsburgh (East Liberty Branch), Butler, and State College (Bella S. Schlow Memorial Library).

DO's Eligible

According to a directive issued by the Department of the Army, qualified doctors of osteopathy may be considered for appointment to the Medical Corps in the Pennsylvania Army National Guard.

Ostheopaths are eligible for appointment with concurrent active duty in the Medical Corps in the regular Army and Reserve components.

Let Them Hear from You

When you find that an advertisement in Pennsylvania Medicine is particularly helpful to your practice, the journal and the advertiser both benefit by your writing to the manufacturer to say so.

Your reaction—whether quickly penned on a prescription blank or written as a formal letter—is significant. Requests for samples, comments on the form and content of the product promotion, or simply a "thank you" for the advertisement and its helpfulness, are all indications to the manufacturer that his advertisement has been noticed.

And important to Pennsylvania Medicine is that you mention seeing the advertisement in *your* journal.

Drop a line or two to one or more of the firms advertising in PM, addressing your communication to the company or one of its officials.

M.D.'s in The News

Herbert S. Bowman, New Cumberland, received the first "Outstanding Teacher" award at Harrisburg Hospital. Originated by the 1965-66 intern class, the award was presented by **Robert S. Kish, M.D.,** a senior intern.

Robert L. Brent, M.D., is the new head of the department of pediatrics at Jefferson Medical College, and attending pediatrician-in-chief at Jefferson Hospital, according to an announcement by **William A. Sodeman, M.D.,** dean and vice-president for medical affairs. Dr. Brent, a professor of pediatrics at Jefferson since 1961, has done his principal research in congenital malformations. From 1957 to 1960, he was an associate professor of pediatrics at Jefferson, becoming a clinical professor in 1960 and a full professor a year later. He is a Fellow of the American Academy of Pediatrics, and a member of many other professional medical organizations.

DR. BRENT

Among scheduled speakers for the Twenty-sixth Annual Congress on Occupational Health, to be held in Portland, Oregon, September 26-28, is **I. S. Ravdin, M.D.,** Philadelphia.

Theodore W. Plume, M.D., has been appointed physician-in-chief of the general practice service section of Abington Memorial Hospital's medical division.

G. Robert Campbell, M.D., Beaver, was chairman of the Health-O-Rama Display which provided thousands of free tests for diabetes, anemia, hearing and vision defects, and pulmonary and cardiovascular problems.

Charles L. Wilbar, Jr., M.D., Camp Hill, participated in ceremonies dedicating the new East Penn Medical Center, Blandon. **Robert S. Donovan, M.D.,** Bernville, will be in charge of the center, architectural service and technical advice for which were provided by the Sears, Roebuck Foundation.

Wendell B. Gordon, M.D., Pittsburgh, is the new president of the American Society of Internal Medicine.

Raymond A. Werts, M.D., Renovo, was honored by the Renovo Lions Club for his service to the organization.

Harold Fisher, M.D., York, has been named president-elect of the Pennsylvania Allergy Association. **Macy I. Levine, M.D.,** Pittsburgh, is secretary-treasurer, and **Herbert C. Mansmann, Jr., M.D.,** also of Pittsburgh, has moved up from president-elect to president.

The recipient of the forty-third annual Strittmatter Award of the Philadelphia County Medical Society is **Eugene P. Pendergrass, M.D.**

Charles L. Leedham, M.D., Harrisburg, has been reappointed to membership on the AMA Committee on Nursing.

William B. Clendenning, M.D., Waynesburg, was chosen "Man of the Year" by the local Junior Chamber of Commerce.

Principle banquet speaker at the convention of the Pennsylvania Society of Internal Medicine was **Edward C. Rosenow, Jr., M.D.,** Philadelphia. Dr. Rosenow is executive director of the American College of Physicians.

H. Michael Seitz, M.D., Hershey, is a newly-certified Diplomate of the American Board of Obstetrics and Gynecology.

Honored at the annual alumni banquet of Thiel College, Greenville, was **Eugene F. Berkman, M.D.,** Beaver, a member of the Class of 1933. Dr. Berkman was cited for his outstanding work with crippled children.

Ross A. Kelly, M.D., Fredonia, was honored at a testimonial dinner in mid-May, shortly before his retirement. On June 1, he and Mrs. Kelly moved to Arizona.

Donald R. Koehler, M.D., formerly of Thermopolis, Wyoming, has returned to his native state to become medical director of the Pittsburgh Steel Company.

Albert M. Kligman, M.D., Philadelphia, received an award from the Society of Cosmetic Chemists in recognition of his contributions to medical literature.

John G. Sheedy, M.D., Altoona, is the new president of the Blair County Chapter of the Academy of General Practice. President-elect is **Thomas R. Meloy, M.D.,** and secretary-treasurer, **J. Scott Hommer, M.D.** (both also of Altoona).

President-elect of the Pennsylvania Society of Internal Medicine is **Alexander M. Minno, M.D.,** Oakland.

For his years of service to Shamokin State General Hospital, **Lionel Gates, M.D.,** Shamokin, was honored by the institution's medical staff.

Marshall J. Kieselstein, a second-year student at the Temple University School of Medicine, has received the William Harvey Perkins Prize in Preventive Medicine, awarded by the College of Physicians of Philadelphia.

Recently elected president of the Pennsylvania Academy of Ophthalmology and Otolaryngology is **Benjamin F. Souders, M.D.,** Reading, succeeding **Merrill B. Hayes, M.D.,** Chester. **John T. Dickinson, M.D.,** Pittsburgh, was chosen president-elect; first, second, and third vice-presidents, respectively, are **Drs. Robert F. Rohm,** Pittsburgh, **Charles M. Norris,** Philadelphia, and **Albert F. Cleveland,** Drexel Hill. Elected to serve three-year terms as directors are **Drs. Louis G. Silcox,** Philadelphia, **Samuel W. Knisely,** Harrisburg, and **Robert A. Rupp,** Uniontown.

Esko Kaarsalo, M.D., Turku, Finland, is spending a six-month period as visiting research physician and specialist in internal medicine at The Institute for Cancer Research, Philadelphia. His studies are in the area of inherited traits, as revealed through study of blood specimens. At Turku University, Dr. Karrsalo is senior assistant physician in the department of medical microbiology.

DR. KAARSALO

Among participants in the annual meeting of the American Association for Cancer Research, held in Denver, Colorado, was **Hilary Koprowski, M.D.,** Philadelphia. He was chairman of the program committee.

Recollections of the strong personality and character of his late father, a physician, are set forth by **Edward S. Gifford, Jr., M.D.,** Philadelphia, in his newly-published book, *Father Against the Devil.*

One of a team of five heart specialists who went to Calcutta in June to provide instruction in the newest methods of treating heart disease is **Albert N. Brest, M.D.,** Wyncote.

must penicillin be a bitter pill to swallow?
not if it is V-Cillin K.

V-Cillin K now has a unique glossy coating that banishes bitter penicillin taste and makes it easier to swallow. Within six seconds (just long enough for the tablet to get past the taste buds), the coating dissolves and the penicillin is ready for immediate absorption into the bloodstream. The patient still gets all the special benefits of V-Cillin K, including consistent dependability . . . even in the presence of food.

Indications: V-Cillin K is an antibiotic useful in the treatment of infections caused by streptococci, pneumococci, and sensitive strains of staphylococci.

Contraindications and Precautions: Although sensitivity reactions are much less common after oral than after parenteral administration, V-Cillin K should not be administered to patients with a history of allergy to penicillin. As with any antibiotic, observation for overgrowth of nonsusceptible organisms during treatment is important.

Usual Dosage Range: 125 mg. (200,000 units) three times a day to 250 mg. every four hours.

Supplied: Tablets V-Cillin K, 125 or 250 mg.; also, V-Cillin K, Pediatric, 125 mg. per 5-cc. teaspoonful, in 40, 80, and 150-cc.-size packages.

V-Cillin K® **Six-Second Barrier to Bitterness**

Potassium Phenoxymethyl Penicillin

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Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

Chosen "Alumna of the Year" by Roxborough High School, Philadelphia, is **E. Fannie Freedman, M.D.,** Philadelphia.

Among Mead Johnson Residency Scholars for 1966-67 is **Richard F. Corlin, M.D.,** Philadelphia.

Frank H. Krusen, M.D., Philadelphia, has received an honorary LL.D. degree from Jefferson Medical College.

A Fellow-elect of the American College of Obstetricians and Gynecologists is **Richard C. Sorce, M.D.,** Pittsburgh. A Junior Fellow is **Lina G. Pardaro, M.D.,** Philadelphia. Candidates for Junior Fellowships are **Drs. Barton B. Hartman,** Springfield, and **Rodriguez Mortel, M. Steven Piver,** and **Beryl B. Spruce,** all of Philadelphia.

Drs. Philip Gordy, Joseph C. White, and **John W. Goldschmidt,** all of Philadelphia, presented a symposium on strokes as part of the annual Founders' Day observance of Mercy Hospital, Altoona.

Ellsworth R. Browneller, M.D., Danville, was a speaker at a Forum on Hospital and Health Affairs conducted by the Graduate School in Hospital Administration at Duke University.

A 1966 Distinguished Alumnus Award of Lebanon Valley College, Annville, went to **John H. Moyer, M.D.,** Philadelphia.

Harry E. Bacon, M.D., Philadelphia, participated in a postgraduate course in colon and rectal surgery at Barcelona, Spain; the course was sponsored by the Hospital de la Santa Cruz Y San Pablo.

One of only two physicians throughout the United States and Canada elected to membership in the American Otologic Society in 1966 is **James M. Cole, M.D.,** Danville. Membership in the society is limited to one hundred.

Among this year's graduates of medical schools is the son of **Dr.** and **Mrs. Lucian J. Fronduti** (Mrs. Fronduti is president of the Woman's Auxiliary to the PMS). **Robert L. Fronduti, M.D.,** received his degree from Jefferson Medical College, from which his father was graduated in 1934.

For "outstanding service to youth in the Scout movement," **Marvin E. Aronson, M.D.,** Philadelphia, has been given the Silver Beaver Award, highest national honor conferred by the Boy Scouts of America.

George T. Harrell, Jr., M.D., director of The Milton S. Hershey Medical Center, addressed a conference on geriatrics at Semmering, Austria, near Vienna, in late June.

Tarentum High School's commencement speaker was **Samuel M. Hazlett, Jr., M.D.,** Greenville.

As a result of his talks and reports in regard to a two-month tour of duty in Vietnam, **H. Robert Davis, M.D.,** Boiling Springs, has received many contributions of money and supplies to be used for the health and hospitalization needs of Vietnamese civilians.

E. Jane Goplerud, M.D., Palmerton, was cited as the outstanding graduate of the Grinnell (Iowa) College Class of 1941.

Harry D. Propst, M.D., Honesdale, has been honored for community and organizational service by the Lions clubs of Honesdale, Waymart, and Lake Ariel.

Edward J. Benz, M.D., Allentown, is the new president of the Pennsylvania Association of Clinical Pathology.

Among recently certified Diplomates of the American Board of Pediatrics is **Stanley I. Stein, M.D.,** Allentown.

The Montour County Medical Society has honored **Francis W. Davison, M.D.,** for service as president of the American Triological Society during 1965-66.

Dr. and **Mrs. Morton W. Levenson,** Rheinholds, left on June 6 for Leopoldville, Republic of the Congo, where Dr. Levenson will be medical attaché at the United States embassy.

Ralph L. Perry, M.D., Sharon, recently became a Fellow of the American Academy of Pediatrics.

Edward H. McClister, Kittanning, has received the PMS Fifty-Year Award, presented by two of his contemporaries, **Drs. Hugh I. Stitt** and **Andrew J. Sedwick,** (both also of Kittanning), in behalf of the Armstrong County Medical Society.

Paul L. Shallenberger, M.D., Sayre, is scheduled to participate in medical meetings this fall in Japan, India, and Spain.

One of three nationally-known cardiovascular specialists who spoke at the "Doctors' Day" of Oakland Veterans Administration Hospital, Pittsburgh, was **William H. Sewell, M.D.,** Sayre.

A lead editorial in the Harrisburg *Patriot* honored **Thomas E. Bowman, Jr., M.D.,** for ten years' service as a founder and the sole director of the Capitol Area Science Fair.

Joseph B. Griffith, M.D., Sewickley, devoted two months to medical and surgical service to Vietnamese civilians.

Drs. Charles W. Reninger, Jr., Allentown, and **James T. Dorsey,** Emmaus, are new Diplomates of the American Board of Obstetrics and Gynecology.

Robert C. G. Stanley, M.D., Chester, has been elected medical director of a division of the American Cancer Society comprising Berks, Bucks, Chester, Delaware, and Lehigh counties.

Stanley B. Steinberg, M.D., Philadelphia, is the new president of the Eastern State School and Hospital board of trustees.

Ih Chin Kim, M.D., Easton, is a newly-elected Fellow of the American Academy of Pediatrics.

The Montour County Medical Society has awarded cash prizes for medical papers to **Drs. Melvin F. Strockbine, John Connelly,** and **Donald L. Hartman,** all of Danville.

New officers of the Philadelphia Rheumatism Society are **Drs. William D. Kimler,** Haddon Heights, New Jersey, president; **Ernest M. Brown, Jr.,** Philadelphia, vice-president; and **Stewart McCracken,** also of Philadelphia, secretary-treasurer.

Kenneth C. Archibald, M.D., formerly of New York City, has been appointed director of the physical medicine and rehabilitation department at Episcopal Hospital, Philadelphia. At Temple University School of Medicine, he will be associate professor in his specialty, and in the Biomedical Engineering Research Unit at Moss Rehabilitation Hospital he will serve as medical liaison person for Temple. He has done physical medicine and rehabilitation work at New York University-Bellevue Medical Center, at the University Hospital, Cleveland, and at New York Hospital-Cornell Medical Center.

DR. ARCHIBALD

An eminent role in medical practice

- Clinicians throughout the world consider meprobamate a therapeutic standard in the management of anxiety and tension.
- The high safety-efficacy ratio of 'Miltown' has been demonstrated by more than a decade of clinical use.

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(meprobamate)

Indications: Meprobamate is effective in relief of anxiety and tension states. Also as adjunctive therapy when anxiety may be a causative or otherwise disturbing factor. Although not a hypnotic, meprobamate fosters normal sleep through both its anti-anxiety and muscle-relaxant properties.

Contraindications: Previous allergic or idiosyncratic reactions to meprobamate or meprobamate-containing drugs.

Precautions: Careful supervision of dose and amounts prescribed is advised. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction; withdraw gradually after use for weeks or months at excessive dosage. Abrupt withdrawal may precipitate recurrence of pre-existing symptoms, or withdrawal reactions including, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, the dose should be reduced and operation of motor vehicles or machinery or other activity requiring alertness should be avoided if these symptoms are present. Effects of excessive alcohol may possibly be increased by meprobamate. Grand mal seizures may be precipitated in persons suffering from both grand and petit mal. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side effects: Drowsiness may occur and, rarely, ataxia, usually controlled by decreasing the dose. Allergic or idiosyncratic reactions are rare, generally developing after one to four doses. Mild reactions are characterized by an urticarial or erythematous, maculopapular rash. Acute nonthrombocytopenic purpura with peripheral edema and fever, transient leukopenia, and a single case of fatal bullous dermatitis after administration of meprobamate and prednisolone have been reported. More severe and very rare cases of hypersensitivity may produce fever, chills, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, anaphylaxis, stomatitis and proctitis. Treatment should be symptomatic in such cases, and the drug should not be reinstituted. Isolated cases of agranulocytosis, thrombocytopenic purpura, and a single fatal instance of aplastic anemia have been reported, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity has been reported, usually after excessive meprobamate dosage. Suicidal attempts may produce lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

Usual adult dosage: One or two 400 mg. tablets three times daily. Doses above 2400 mg. daily are not recommended.

Supplied: 'Miltown' (meprobamate) is available in two strengths: 400 mg. scored tablets and 200 mg. coated tablets. 'Meprotabs' (meprobamate) is available as 400 mg. white, coated, unmarked tablets. *Before prescribing, consult package circular.*

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Postgraduate Courses

ALLENTOWN

Pathology Seminars, Temple University department of pathology, and Lehigh AAGP, at Allentown Hospital, Mondays, September-June, 7:30 P.M.; 20 hours AAGP. Contact Allentown Hospital Association, Seventeenth and Chew Streets (18102).

CAMP HILL

Medical Management of Patient in Long-Term Care Facilities, PAGP, PMS, Pennsylvania Association of Nursing and Convalescent Homes, at Penn Harris Motor Inn, September 25, 10 A.M.; 5 hours AAGP. Contact T. C. Kalkhof, M.D., P.O. Box 806, Erie 16512.

DREXEL HILL

Symposium on Blunt Trauma, Delaware County AGP, at Delaware County Memorial Hospital, October 29, 9 A.M.–4 P.M.; 6 hours AAGP. Contact E. D. Arsht, M.D., at the hospital, Lansdowne and Keystone Avenues (19026).

HARRISBURG

Medical Lectures, Harrisburg Polyclinic Hospital and University of Pennsylvania School of Medicine, at Polyclinic, October 25, November 22, February 28, March 28, and April 25, 10 A.M.–1 P.M.; 5 hours AAGP. Contact G. F. Zerbe, M.D., 1822 Market Street, Camp Hill 17011.

HAZLETON

Continuing Education Program, by The University of Pennsylvania School of Medicine, at Hazleton State General Hospital Nursing Home, Second and Third Streets, Thursdays, through December 8 (course under way). Contact V. J. Kennedy, M.D., at the hospital (18201).

PHILADELPHIA

The Elder Patient: Clinical Features and Total Management, Joseph T. Freeman, M.D., chairman, PMS Commission on Chronic Illness and Geriatrics; at Lankenau Hospital, September 14, 21, and 28, 9:30 A.M.–5 P.M.; 18 hours AAGP. Contact Dr. Freeman, 1530 Locust Street (19102).

Microsurgery of the Temporal Bone, Temple University School of Medicine, first week of each month. Contact B. J. Ronis, M.D., Temple University School of Medicine, Broad and Ontario Streets (19140).

Interpretation and Therapy of Cardiac Arrhythmias, Hahnemann Medical College and Hospital, at Marriott Motor Hotel, July 25–29. Contact L. S. Dreifus, M.D., 230 North Broad Street (19102).

Medical Hypnosis for Graduate Physicians, Department of Psychiatry, Graduate Division, School of Medicine, University of Pennsylvania; at the Institute of the Pennsylvania Hospital, Wednesdays, 3–7 P.M., September 28 through February 22; AAGP accreditation; fee, $150. Contact S. E. Pulver, M.D., director, 111 North Forty-ninth Street (19139).

Applied Office Psychiatry for Graduate Physicians, at the Institute of the Pennsylvania Hospital, Wednesdays, 3–7 P.M., September 28 through December 21; AAGP accreditation; fee, $50. Contact Dr. Pulver, as above.

Office Psychiatry, Institute of the Pennsylvania Hospital, 4 hours each Thursday for 12 weeks, beginning September 28. Contact Dr. Pulver, as above.

Annual Course in Postgraduate Gastroenterology, American College of Gastroenterology, at Bellevue Stratford, with a session on instrument techniques at Albert Einstein Medical Center, Northern Division; course period—October 27–29. For further information, contact the ACG, 33 West Sixtieth Street, New York 10023.

Seventeenth Hahnemann Symposium, Nutritional Dysfunction, at Sheraton Hotel, in December. Donald Berkowitz, M.D., director.

General Internal Medicine, Hahnemann Medical College and Hospital, Wednesdays, October 5, 1966–March 29, 1967, 1–4 P.M.; 24 hours AAGP. Contact Drs. D. Mason, W. W. Oaks, and S. R. Bender, 230 North Broad Street (19102).

Bronchoesophagology, Drs. Charles M. Norris and Gabriel F. Tucker, Jr., November 28–December 9, 1966, and April 3–14, 1967; fee, $250. Contact Chevalier Jackson Clinic, Temple University Hospital, 3401 North Broad Street (19140).

Renal Failure, Hahnemann Medical College, at Sheraton Hotel, December 12–14, 9 A.M.–5 P.M. daily; 24 hours AAGP. Contact Albert N. Brest, M.D., 230 North Broad Street (19102).

Psychiatry and Clinical Medicine for Nonpsychiatrists, University of Pennsylvania Department of Psychiatry, 2:30 P.M.–5 P.M. Wednesdays, for 20 weeks, starting September 28; fee, $75. Contact W. L. Webb, M.D., Hospital of the University of Pennsylvania, Thirty-fourth and Spruce Streets (19104).

Rational Therapy and Control of Tuberculosis, Hahnemann Medical College and Pennsylvania Tuberculosis and Health Association, at Henry R. Landis State Hospital, Philadelphia, October 3–5; 23 hours AAGP. Contact W. S. Blumenthal, M.D., Hahnemann Medical College, 230 North Broad Street (19140).

Recent Advances in Medicine, Temple University Hospital, Wednesdays, October 26 through December 14, 11 A.M.–4 P.M.; fee, $50. Contact A. J. Finestone, M.D., Temple University Medical Center (19140).

Applied Office Psychiatry and Psychosomatic Medicine, departments of psychiatry, internal medicine, obstetrics-gynecology, and pediatrics, Temple University Medical Center, at Temple University Sciences Center, Wednesdays, October 5 through February 22, 10 A.M.–3 P.M.; 80 hours AAGP. Contact H. K. Fischer, M.D., 3401 North Broad Street (19102).

What's New in Infectious Disease Prevention and Immunization, Jefferson Medical College and Pennsylvania State University, at Jefferson's McClellan Hall, September 28–30; 18 hours AAGP; no fee; supported by Foundation for Community Health (Philadelphia). Contact J. H. Killough, M.D., 1025 Walnut Street (19107).

PITTSBURGH

Seminars in Psychological Aspects of Medical Practice, University of Pittsburgh School of Medicine (Staunton Clinic), beginning Wednesday *or* Thursday September 21 *or* 22, 10 A.M. –12 M., and continuing for 13 weeks; fee, $65; 26 hours AAGP. Contact R. A. Pittenger, M.D., 3601 Fifth Avenue (15213); telephone 1-412-683-1620, Extension 681.

POTTSVILLE

The More Common Diseases of the Adrenals, Jefferson Medical College and The Pennsylvania State University, at Pottsville Hospital School of Nursing, September 8, 11:30 A.M.–2 P.M.; 2 hours AAGP. Contact J. H. Killough, M.D., 1025 Walnut Street, Philadelphia 19107.

Endocrine Aspects of Non-Endocrine Tumors, Jefferson Medical College and The Pennsylvania State University, at Pottsville Hospital School of Nursing, October 13, 11:30 A.M.–2 P.M.; 2 hours AAGP. Contact Dr. Killough, as above.

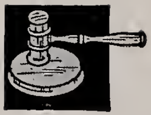
READING

Liver Diseases and Miscellaneous Subjects, Hahnemann Medical College, at Community General Hospital, Wednesdays, September through May, 9:30 A.M. Contact E. L. Trexler, M.D., 15 South Franklin Street, Fleetwood 19522.

UNIVERSITY PARK

Fifteenth Annual Health Conference, Pennsylvania Department of Health and PMS, at The Pennsylvania State University, August 7–11; 18 hours AAGP. Contact A. V. Sinkosky, P.O. Box 90, Harrisburg 17120.

• **About This Section:** To be publicized, courses must be one-half day (three hours) or more in length, designed for licensed doctors of medicine, and of interest to physicians in an area of several counties or more. Information must be received by the first day of each month, to appear the following month. Each item will appear no more than four times. Address: Commission on Medical Education, 230 State Street, Harrisburg 17105.



Meetings

STATE SOCIETY

AUGUST

Board of Trustees and Councilors—Penn Harris Motor Inn, near Harrisburg, August 10–11.

SEPTEMBER

Council on Public Service—September 10.

OCTOBER

One Hundred Seventeenth Annual Session—Penn Sheraton Hotel, Pittsburgh, October 9–13.

REGIONAL

SEPTEMBER

Seminar on Diabetes, Florida Diabetes Association—Deauville Hotel, Miami Beach, September 29–30. Contact R. T. Rengarts, M.D., secretary, P.O. Box 268, Sebring, Florida 33870.

Cancer Scientific Symposium for Physicians and Dentists—Holiday Inn, Route 22, Bethlehem. Speakers: Drs. George Crile, Jr., Robert Ravdin, Sigmund Nadler, Peter Randall, Milton Miller (D.D.S.), and Lt. Col. S. N. Bhaskar.

OCTOBER

Annual Meeting, Pennsylvania Chapter, American Academy of Pediatrics—Pocono Manor Inn, October 1–2.

Correction

In regard to the article, *Extensive Jejuno-Ileal Resection,* appearing in the July, 1966, issue of PENNSYLVANIA MEDICINE, we make the following corrections: the major affiliation of H. Phelps Potter, Jr., M.D., is that of Associate Professor of Medicine and Chief of the Gastrointestinal Division, Woman's Medical College and Hospital; and in Table I, the serum carotene values should be noted in "ug/100," rather than in "mg/100."

The Editors

NATIONAL

SEPTEMBER

American Association of Obstetricians and Gynecologists—The Homestead, Hot Springs, Virginia, September 8–10.

Decennial Conference on Cell, Tissue, and Organ Culture—Bedford, September 11–15.

American Society of Clinical Pathologists—Washington (D.C.) Hilton Hotel, September 16–24 (members only).

College of American Pathologists—Hilton Hotel, Washington, D.C., September 17–23.

International Congress of Nephrology, cosponsored by American Heart Association Council on Circulation—Washington, D.C., September 26–30.

Animal Care Panel—Chicago, September 26–30.

OCTOBER

American College of Gastroenterology—Bellevue Stratford Hotel, Philadelphia, October 23–26.

Thirty-fifth Annual Meeting, American Academy of Pediatrics—Chicago, October 22–27. Contact the academy at 1801 Hinman Avenue, Evanston, Illinois 60204.

NOVEMBER

American Medical Association Clinical Convention—Las Vegas, November 27–30. Conference on Medical Aspects of Sports—Las Vegas, November 27.

TEMPLE UNIVERSITY MEDICAL CENTER
presents the 10th Annual Postgraduate Course
RECENT ADVANCES IN MEDICINE
11:00 A.M. to 4:00 P.M.
on 8 consecutive Wednesdays
from October 26 to December 14, 1966

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pyelitis?
urethritis?
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- Low incidence of untoward effects; no fungal overgrowth, crystalluria, ototoxic or nephrotoxic effects have been observed.
- "Excellent" or "good" response reported *in more than 2 out of 3* patients with either chronic or acute gram-negative infections.[1]

Indications: Urinary tract infections caused by gram-negative and some gram-positive organisms.

Side effects: Mainly mild, transient gastrointestinal disturbances; in occasional instances, drowsiness, fatigue, pruritus, rash, urticaria, mild eosinophilia, reversible subjective visual disturbances (overbrightness of lights, change in visual color perception, difficulty in focusing, decrease in visual acuity and double vision), and reversible photosensitivity reactions. Marked overdosage, coupled with certain predisposing factors, has produced brief convulsions in a few patients.

Precautions: As with all new drugs, blood and liver function tests are advisable during prolonged treatment. **Pending further experience, like most chemotherapeutic agents, this drug should not be given in the first trimester of pregnancy. It must be used cautiously in patients with liver disease or severe impairment of kidney function.** Because photosensitivity reactions have occurred in a small number of cases, patients should be cautioned to avoid unnecessary exposure to direct sunlight while receiving NegGram, and if a reaction occurs, therapy should be discontinued. The dosage recommended for adults and children should not arbitrarily be doubled unless under the careful supervision of a physician. Bacterial resistance may develop.

When testing the urine for glucose in patients receiving NegGram, Clinistix® Reagent Strips or Tes-Tape® should be used since other reagents give a false-positive reaction.

Dosage: Adults: Four Gm. daily by mouth (2 Caplets® of 500 mg. four times daily) for one to two weeks. Thereafter, if prolonged treatment is indicated, the dosage may be reduced to two Gm. daily. Children may be given approximately *25 mg. per pound* of body weight per day, administered in divided doses. The dosage recommended above for adults and children should not arbitrarily be doubled unless under the careful supervision of a physician. Until further experience is gained, infants under 1 month should not be treated with the drug.

How supplied: Buff-colored, scored Caplets® of 500 mg. for adults, conveniently available in bottles of 56 (sufficient for one full week of therapy) and in bottles of 1000. 250 mg. for children, available in bottles of 56 and 1000.

References: (1) Based on 23 clinical papers, 1512 cases. Bibliography on request. (2) Bush, I. M., Orkin, L. A., and Winter, J. W., in Sylvester, J. C.: Antimicrobial Agents and Chemotherapy—1964, Ann Arbor, American Society for Microbiology, 1965, p. 722.

Winthrop

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*As many as 9 out of 10 urinary tract infections are now caused by gram-negative organisms: E. coli, Klebsiella, Aerobacter, Proteus, Paracolon or Pseudomonas[2]... However, infections of the urethra and prostate caused by non-gonococcal gram-negative organisms are believed to be less prevalent.

SAXON

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if you don't take your cough medicine this minute,
I'll call Doctor Peabody."

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If it's the useless, exhausting type of cough that often accompanies respiratory infection or allergy, you can provide prompt relief with Novahistine DH. Its decongestant-antitussive action controls frequency and intensity of cough spasms without abolishing cough reflex. And the fresh grape flavor of Novahistine DH appeals to children and adults alike.

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Use with caution in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Ambulatory patients should be advised that drowsiness may result. Continuous dosage over an extended period is contraindicated since codeine phosphate may cause addiction.

Each 5 ml. teaspoonful of Novahistine DH contains codeine phosphate, 10 mg. (Warning: may be habit forming); phenylephrine hydrochloride, 10 mg.; chlorpheniramine maleate, 2 mg.; chloroform (approx.), 13.5 mg.; l-menthol, 1 mg. (Alcohol 5%). Each 5 ml. of Novahistine Expectorant contains the above ingredients and, in addition, glyceryl guaiacolate, 100 mg.

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HONOR 'PENN' MAN—Eugene P. Pendergrass, M.D., second from left, emeritus professor of radiology at the University of Pennsylvania School of Medicine, receives the forty-third annual Strittmatter Award of the Philadelphia County Medical Society from Philip Q. Roche, M.D., award committee chairman. Also participating in the presentation were Drs. I. S. Ravdin, left, and Edmund L. Housel, right. Dr. Housel is PCMS president.

PSU Sets Session On Sex Education

A three-day symposium on sex education of the college student, to be held at The Pennsylvania State University October 19-21, is open to college and school health physicians and nurses, social and health workers, and interested educators.

Major discussion areas will include social attitudes, current advances in medical knowledge related to sexual behavior, ethical issues confronting the physician, and the role of the physician as educator and counselor.

M.D.'s presenting medical papers will include Warren R. Lang, director, department of obstetrics and gynecology, Jefferson Medical College Hospital; Elsie Carrington, associate professor of obstetrics and gynecology, Woman's College Hospital; and James L. Breen, director, department of obstetrics and gynecology, Newark (New Jersey) City Hospital.

At the closing session, on October 21, Dr. Arthur E. Gravatt, associate professor of family relationships at The Pennsylvania State University, symposium chairman, will summarize the discussions.

For additional information write the Conference Center, J. Orvis Keller Building, Pennsylvania State University, University Park 16802.

CA Study at Jefferson

The Pennsylvania Department of Health has awarded $4,698 to Jefferson Medical College for a study of lung cancer.

Clarence A. Tinsman, M.D., director of the department's Division of Chronic Diseases, said the medical college will study 850 cases of lung cancer diagnosed in Philadelphia from 1947 to 1964.

Wyeth Residency Grants

Eligible to apply for Wyeth Pediatric Residency Fellowships to take effect July 1, 1967, are interns, physicians who have recently completed internships, research Fellows, or M.D.'s leaving the armed services or the U.S. Public Health Service.

Each fellowship provides $4,800 over a two-year period, toward advanced study required for Board certification.

Residency institutions selected must be accredited by the AMA's Residency Review Committee, the American Board of Pediatrics, and the American Association of Pediatrics.

For further information, contact Philip S. Barba, M.D., 120 Erdenheim Road, Philadelphia 19118.

- More than $1,250,000 has been provided to medical students since 1953, under the Lederle Medical Student Research Fellowship Program.

Deaths

○ Indicates current membership in County Medical Society, The Pennsylvania Medical Society, and The American Medical Association.

○ Leslie E. Baker, Bloomsburg; Jefferson Medical College, 1928; age, 64; died May 29, 1966. Dr. Baker was a past secretary-treasurer and a past president of the Columbia County Medical Society. He was on the staffs of Bloomsburg and Berwick hospitals. His memberships included Masonic orders. Surviving are his wife, a daughter, and two sons.

○ Walter D. Bauer, Jr., Pittsburgh; Jefferson Medical College, 1940; age, 51; died May 13, 1966. An instructor in the University of Pittsburgh School of Medicine, Dr. Bauer also was acting director of anesthesiology at the Eye and Ear Hospital. He belonged to several anesthesiology specialty societies. Among his survivors are his wife and two daughters.

○ Reid B. Brader, State College; University of Pennsylvania School of Medicine, 1936; age, 55; died May 4, 1966. Dr. Brader was associated with the Ritenour Health Center of The Pennsylvania State University. A brother survives.

○ Walter H. Brubaker, Lebanon; University of Pennsylvania School of Medicine, 1910; age, 79; died May 20, 1966. In 1960, the Lebanon County Medical Society, of which he was a past president, honored Dr. Brubaker for fifty years of service to medicine. The following year, his medical alma mater cited him as a distinguished senior alumnus. He served as Lebanon County coroner for ten years, and had been an official of the Peoples National Bank of Lebanon since 1928. He was a member of Masonic orders, and a director of the Lebanon Community Library. His survivors include his wife, two daughters, and a son.

○ Charles I. Buvinger, Pittsburgh; University of Pittsburgh School of Medicine, 1897; age, 90; died May 21, 1966. Dr. Buvinger, who had held a teaching appointment at St. John's General Hospital, was a staff member there and at the Eye and Ear Hospital. In 1947, he received the PMS Fifty-Year Award. His wife, three daughters, and four sons survive.

○ Paul C. Colonna, Philadelphia; Johns Hopkins University School of Medicine, 1920; age, 73; died June 7, 1966. Dr. Colonna had had many hospital and medical school affiliations, including that of professor of orthopaedic surgery at the University of Pennsylvania School of Medicine; he became emeritus professor in 1958. He was a past president of the American Orthopedic Association and a Diplomate of the American Board of Orthopaedic Surgeons, and belonged to a number of other specialty organizations. Surviving are his wife and two daughters.

○ Morris Davis, at Woodland Hills, California (resident of New Castle); University of Pennsylvania School of Medicine, 1921; age, 74; died May 12, 1966. A staff member at Jameson Memorial and St. Francis hospitals, he belonged to a number of organizations such as the Pennsylvania Association for Retarded Children, Friends of Boys' Clubs of America, and B'nai B'rith. Among his survivors are his wife, a daughter, and a son, Harvey D. Davis, M.D.

○ Harry C. Fish, Drexel Hill; Medico-Chirurgical College, 1910; age, 79; died May 21, 1966. Dr. Fish is survived by a daughter and two sisters.

○ Kalman Frankel, Rydal; Jefferson Medical College, 1943; age, 47; died May 6, 1966. Dr. Frankel, an assistant professor of neurology and chief of the neurology and psychiatry departments at Abington Memorial Hospital, was a Fellow of the College of Physicians of Philadelphia and a member of the American Academy of Neurology and the Philadelphia Neurological and Psychiatric societies. He is survived by his wife, a daughter, and two sons.

Charles L. Fulmer, Philadelphia; Hahnemann Medical College, 1916; age, 72; died February 16, 1966. We have received no information regarding survivors.

○ John H. E. Fust, Erie; University of Louisville School of Medicine, 1914; age, 73, died February 2, 1966. Dr. Fust had had teaching and staff appointments at Hamot Hospital, and also had been on the staff of St. Vincent's Hospital. His survivors include his wife and a son, John A. Fust, M.D.

○ Paul D. Good, Birdsboro; Hahnemann Medical College, 1927; age, 68; died May 12, 1966. For many years coroner of Bucks County, he served in 1956 as president of the Pennsylvania Coroners' Association. At one time he operated a hospital at West Lawn. He belonged to Masonic orders. His wife, two daughters, two stepsons, and two brothers survive.

○ Leo R. Gorman, Reading; Jefferson Medical College, 1917; age, 74; died June 4, 1966. Chief of gynecology at St. Joseph's Hospital for many years, Dr. Gorman was in 1946 president of its staff. Last year he was named clinician in charge of an alcoholism counseling and treatment clinic at the hospital. He was a member of the American College of Surgeons. Among his survivors are his wife, a daughter, and two sons.

○ James W. Hartman, Jr., Latrobe; University of Michigan School of Medicine, 1930; age, 62; died June 1, 1966. Dr. Hartman, a staff member at Latrobe Area Hospital, was school doctor for the Greater Latrobe Area School District. He was a member of the Masons and the Elks. His survivors include his wife, three sons (one of whom is H. King Hartman, M.D.), and a sister.

Louis O. Heiland, Collegeville; Jefferson Medical College, 1908; age, 93; died May 13, 1966. Dr. Heiland is survived by several nieces and nephews.

○ Samuel Jaffe, Philadelphia; Maryland Medical College, 1912; age, 79; died May 16, 1966. Dr. Jaffe had been an instructor at Jefferson Medical College and a consultant at Albert Einstein Medical Center. He is survived by three sons, two of whom—David and Robert—are doctors.

○ Victor M. Leffingwell, Sharpsville; Rush Medical College, 1931; age, 68; died April 29, 1966. Dr. Leffingwell, a past president of Mercer County Medical Society, had also served as president of the Pennsylvania chapter of the American College of Chest Physicians and the Mercer County Heart Society, and vice-president of the Pennsylvania Trudeau Society. Surviving him are his wife, two sons, a sister, and four brothers, one of whom is Harold R. Leffingwell, M.D.

○ Louis L. Means, McKeesport; University of Pittsburgh School of Medicine, 1927; age, 63; died May 29, 1966. Dr. Means, a staff member and an instructor of student nurses at McKeesport Hospital, was medical examiner for the Allegheny County

Department of Public Assistance, the McKeesport Boy Scouts, and several life insurance companies, and had formerly been a physician for the community's school system. He belonged to the McKeesport Academy of Medicine, the American Academy of General Practice, and several fraternal and social organizations. Survivors include his wife, a daughter, and two brothers.

○ **Frederic S. Morris,** Jones Mills; Hahnemann Medical College, 1904; age, 84; died May 9, 1966. Long a staff member at Shadyside Hospital, Dr. Morris became its chief of staff in 1940. Following his retirement in 1951, he and his wife, also an M.D., opened the Indian Creek Valley Child Health Center, under sponsorship of the Pennsylvania Department of Health. Dr. Frederic Morris was on the staff of Somerset Community Hospital. His memberships included several fraternal, social, and service organizations. His wife survives.

○ **Samuel T. Nicholson, Jr.,** Pottstown; Johns Hopkins University School of Medicine, 1910; age, 78; died May 8, 1966. Dr. Nicholson, a former medical director of Doehler-Jarvis, also held other industrial medical posts during his career. He belonged to numerous professional medical organizations, and in 1957 was named to membership in the Royal Society of Health of Great Britain. Among his survivors are his wife, a son, two sisters, and a brother, William McN. Nicholson, M.D.

○ **Abraham E. Oliensis,** Philadelphia; University of Pennsylvania School of Medicine, 1911; age, 81; died May 10, 1966. Associate professor of medicine at Temple University School of Medicine from 1912 to 1930, Dr. Oliensis had been on the staffs of Physicians and Surgeons Hospital and Einstein Medical Center. Many of his writings appeared in medical journals. In 1961, he received the PMS Fifty-Year Award. His wife, two daughters, a son, two sisters, and a brother survive.

○ **Henry L. Somers,** Drexel Hill; Hahnemann Medical College, 1925; age, 71; died May 19, 1966. Dr. Somers was a staff member at Fitzgerald-Mercy Hospital. He belonged to Masonic orders. His wife survives.

○ **Lonnie C. Wall,** Philadelphia; Howard University College of Medicine, 1925; age, 68; died May 25, 1966. Dr. Wall belonged to Omega Psi Phi and Chi Delta Mu. He is survived by his wife.

○ **William W. Waters,** Nanticoke; Jefferson Medical College, 1912; age, 79; died May 14, 1966. Dr. Waters was an active leader in church organizations and projects, and belonged to a number of fraternal groups. Surviving are his wife, two daughters, two sisters, and a brother, W. Watkins Waters, M.D.

○ **T. Lamar Williams,** Media; Jefferson Medical College, 1905; age, 85; died May 13, 1966. Dr. Williams had served as president of the Schuylkill and Northumberland county medical societies, and for many years was a member of the PMS House of Delegates. He belonged to Masonic orders. His survivors include his wife and a son, Burton L. Williams, M.D.

○ **Eugene F. Wolfe,** Forty Fort; Jefferson Medical College, 1932; age, 59; died May 11, 1966. Dr. Wolfe was a chief of medicine and director of medical education at Wilkes-Barre General Hospital. Surviving are his mother, a daughter, and a son; his wife survived him by just a few weeks.

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While research continues to seek new answers, it is imperative that greater efforts be made to detect breast cancer early and to get women to their doctors when chances of cure are best. That's why the American Cancer Society is encouraging its Divisions across the country to carry out special breast cancer educational programs. Newest of these are demonstration projects in which physicians in a community volunteer one day to giving breast examinations and to teaching hundreds of women breast self-examination. Breast cancer is one of the major cancer problems which we face and which together, doctor, we must try to resolve through intensified research and educational efforts.

AMERICAN CANCER SOCIETY

PHILADELPHIA DIVISION

PENNSYLVANIA DIVISION

PENNSYLVANIA CANCER FORUM PAGE—presented cooperatively by the Council on Scientific Advancement of the Pennsylvania Medical Society, the Pennsylvania and Philadelphia Divisions of the American Cancer Society, and the Cancer Control Section, Pennsylvania Department of Health.

Frankly, most antihypertensives are pretty good if you give an adequate dose. I'm looking for one with a simple regimen so that mix-ups in doses and therefore the chance of side effects are minimized.

Regroton®
chlorthalidone 50 mg. reserpine 0.25 mg.

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brings pressure down

Advantage: Both components of Regroton are long-acting.
Average dosage: One tablet daily with breakfast.
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Precautions: Reduce dosage of concomitant antihypertensive agents by one-half. Discontinue if the BUN rises or liver dysfunction is aggravated. Electrolyte imbalance and potassium depletion may occur; take particular care in cirrhosis or severe ischemic heart disease, and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended. Use with caution in patients with ulcerative colitis, gallstones, or bronchial asthma.
Side effects: Nausea, vomiting, diarrhea, muscle cramps, headaches and dizziness. Potential side effects include angina pectoris, anxiety, depression, drowsiness, hyperglycemia, hyperuricemia, lassitude, leukopenia, nasal stuffiness, nightmare, purpura, urticaria, and weakness.
For full details, see the complete prescribing information.
Availability: Bottles of 100 and 1000 tablets.

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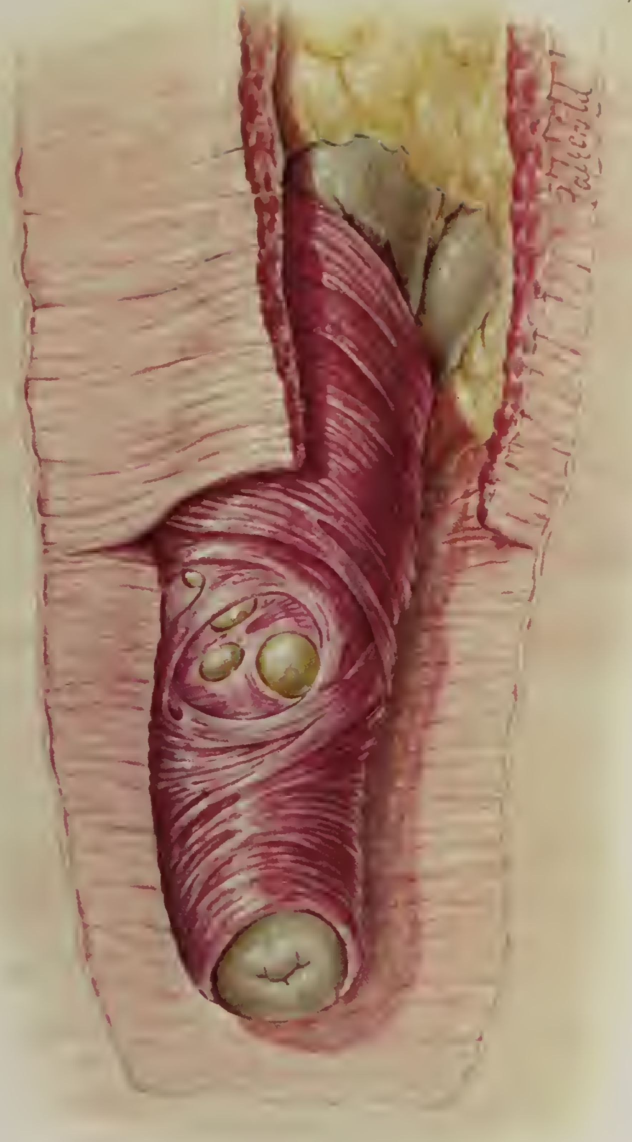

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PERHAPS VERY IMPORTANT

The sphincter of Oddi is made up primarily of smooth muscle fibers. It permits the gall bladder to fill, regulates the flow of bile and pancreatic enzymes and in dysfunction is a primary cause of Biliary Dyskinesia. The sphincter of Oddi is but one of five major foci of smooth muscle spasm where SPACOLIN® (Alverine citrate) acts directly with rapid onset and long duration. No neurotropic side effects because Spacolin is a musculotropic counter-spasmodic unrelated to atropine or atropine-like drugs. Spacolin is not contraindicated in prostatic hypertrophy.

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INDICATIONS: Smooth muscle spasmolytic for use in spastic colon, spastic conditions of the gastrointestinal tract, biliary dyskinesia, cholecystitis, spasm associated with peptic ulcer,* achalasia, pylorospasm, spasm attendant to diarrhea, spastic conditions of the genitourinary tract attributable to inflammation and calculi, certain primary dysmenorrheas and as an aid in cystoscopic, esophagoscopic and gastroscopic examinations. DOSAGE: One tablet after meals 1 to 3 times daily at discretion of physician. When treating spasm associated with peptic ulcer, achalasia or pylorospasm, administer tablets 1/2 hour before meals. In dysmenorrhea, one tablet 3 times daily starting at onset of discomfort. PRECAUTION: Caution is recommended when using in hypotensive patients. SIDE EFFECTS: In common with other smooth muscle depressants, Spacolin temporarily lowers blood pressure.

*Antacid and dietary measures are of primary importance in ulcer treatment and should not be neglected.

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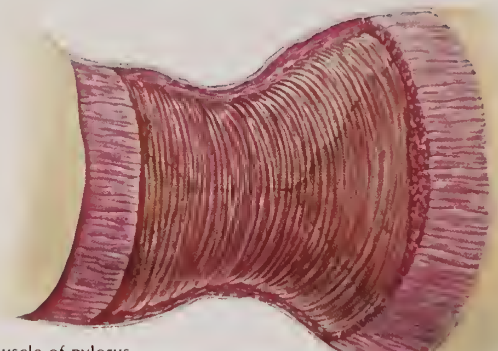
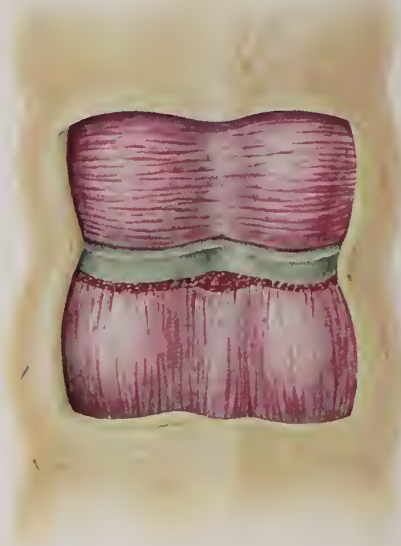
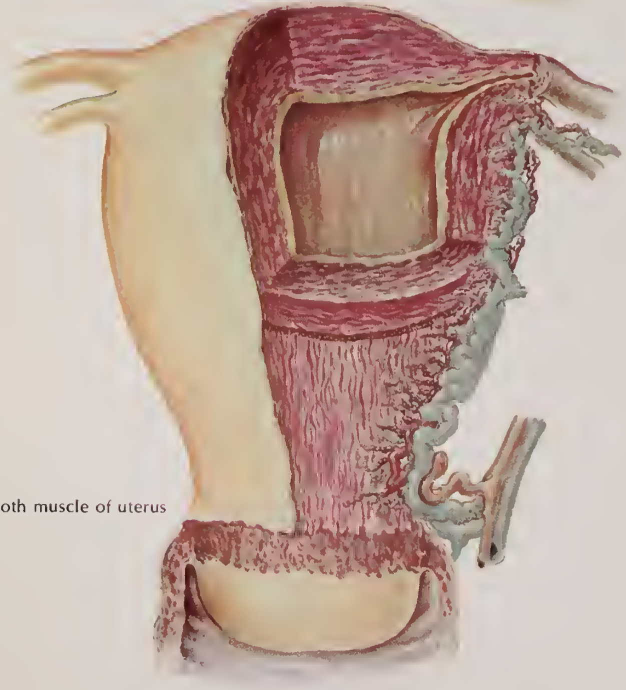
smooth muscle sphincter of Oddi



smooth muscle of pylorus



smooth muscle of colon



smooth muscle of uterus

smooth muscle of urinary bladder

ORIGINAL PAPERS

Diagnosis by Gastrocamera

In combination with conventional procedures, gastric photography can aid greatly in delineating the presence of tumors and other entities

PRACHA PISES, M.D.

Sayre, Pennsylvania

As early as 1898, Lange and Meltzing tried to take pictures of the interior of the stomach without resorting to actual operative procedures.[1] Several attempts have been made by others, but their results were unsatisfactory—mostly due to technical problems—and therefore could not achieve worldwide acceptance as a method of establishing the diagnosis of intragastric disease.

■ *Dr. Pises, formerly an assistant professor of medicine at the University of Nebraska College of Medicine, Lincoln, was associated with the Veterans Administration Hospital in that city; it was in that hospital that the study took place which he describes. He is now affiliated with the Guthrie Clinic, Sayre, as associate in gastroenterology. He is a Diplomate of the American Board of Internal Medicine and of the American Board of Gastroenterology. His memberships include the American Federation of Clinical Research. He makes his home in Sayre.*

There seems to be no question that when the disease has advanced to the stage where abnormal lesions are formed, x-ray examinations in the hands of experienced roentgenologists will detect at least 95 percent of gastric ulcer and approximately 80 percent of duodenal ulcer.[2] Studies from Japan have shown that of patients with carcinoma of the stomach who survived longer than five years after gastrectomy, 80 percent had tumors measuring less than 2 cm. in diameter; in 75 percent of the patients, the infiltration did not extend beyond the submucosal layer. This is quite significant, and demonstrates the value of early detection of malignant lesions in the stomach. Our main concern is to be able to locate the lesion when it is small, and localized in the mucosal area, at which stage, x-ray studies are of little help.

The emergence of the Hirschowitz gastroduodenal fiberscope served as a great impetus to renewed interest in intragastric photography.[3-6] Japanese investigators, aware of these facts, have achieved a great deal of progress in this field.

Drs. Uji and Hayashida of the University of Tokyo Branch Hospital originated the gastrocamera, and the Olympus Optical Company, Tokyo, did the engineering designs. Professor Tasaka of the University of Tokyo first reported the value of the gastrocamera at the meeting of the World Society of Gastroenterology in 1956. In 1961, 825 of the 4,302 hospitals in Japan were using the gastrocamera in a mass screening program for detecting intragastric diseases. The device was introduced into the United States in late 1962.

Instrument and Method

The Type V gastrocamera can be divided into four separate components: the camera proper, the connecting unit (tube), the control unit, and the power unit (Fig. 1, page 30).

The camera proper, located at the tip of the instrument (Figs. 1, 2), is a stainless steel cap with air holes and rubber valves. A small stroboscope-type flash lamp with tungsten filaments, and an F-17 lens with a focal length of 3.6 mm. are located next to the metal cap. One film cassette is housed inside the metal cap, and the film is connected to a film leader so that exposed film can be pulled up by means of the control knob. This is a 5 mm. Anscochrome tungsten film with ASA (American Standard Average) 32 and 32 exposures; 32 pictures can be taken in one passage into the stomach; each electric flash represents one exposure.

The connecting tube encases electric cords to the flash bulb, the string for joint movement of the camera unit, the film leader string, and the air passage. This tube is extremely flexible; with it, the camera unit can be tilted up or down 35 degrees from a horizontal plane (Fig. 2). These movements enable the operator to take the picture in a different plane, according to the pre-set patterns, and hence can cover some "blind" areas in the stomach. The "tip up" position will demonstrate a lesion in the antrum and lesser curvature behind the angulus and the cardiac end of the stomach. The "tip down" position is useful in demonstrating the stoma ulcer, greater curvature lesion, or posterior wall lesion.

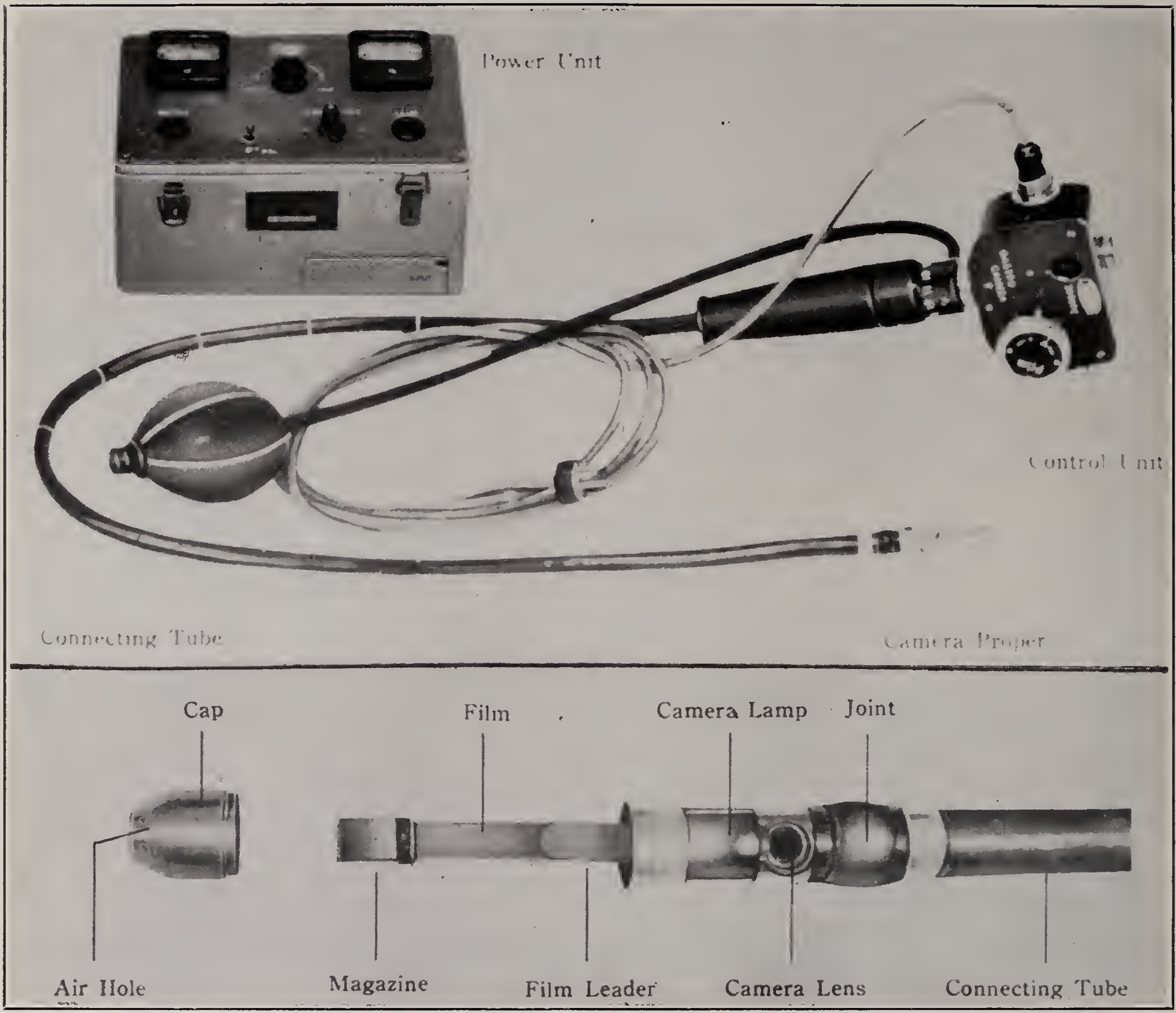


Fig. 1. Gastrophotography unit (above), details of gastrocamera (below).

Study in vitro has shown that at a distance of 5 cm. from the object, the flexible gastroscope gives a 54-degree angle of view; the fiberscope gives 36 degrees compared with the 80-degree angle subtended by the gastrocamera. The diameter of the area covered by the gastroscope, fiberscope, and gastrocamera, at 5 cm. distance, are 51 mm., 31 mm., and 83 mm., respectively.[7] The angle subtended by the flash light area is 110-120 degrees and this gives an even and adequate illumination to the subject photographed. Because of the short focus lens, sharp focusing can be obtained from a distance of 2 mm. up to 30 mm.

The control unit, which is in the operator's hand, contains the handle, the direction indicator, air intake unit, camera angle indicator, and push-button control for picture taking. No shutter is required, due to the fact that the film will be exposed only when the flash-light is triggered in the stomach.

The position of the camera in the stomach can be judged by the first electric flash through the anterior abdominal wall. In the beginning this should be confirmed by fluoroscopy, in conjunction with the stomach position seen in the gastroduodenal x-ray. In a thin patient, the connecting tube can be palpated through the anterior abdominal wall.

The interior of the stomach is arbitrarily divided into four areas: the antrum and pylorus, the angulus, the main body of the stomach, and the cardiac portion.

Pre-Photography Preparations

The patient is prepared as for endoscopic examination. No food or drink is allowed after midnight the day before gastrocamera study. A pre-medication order sheet, sent to the nurses' station, includes orders for a clear liquid supper and Demerol, Phenergan, and Atropine as specified by the physician to be given to the patient at least 45 minutes before the examination. No antacid is given after midnight. An anti-foaming agent (Semethicone or Dow-Corning Antifoam C) is given by mouth and the stomach is emptied by a No. 30 F Ewald tube.

Other precautionary measures, indications, and contraindications for endoscopic procedures are also applied for the gastrocamera examination. The patient should have x-ray studies of the esophagus, and gastroduodenal series (prior to the gastrocamera procedure), in order to detect any anatomical defect in bowel tracts.

The procedure is done in a dark room, so that the electric flash can be seen through the anterior abdominal wall. The camera can be introduced with the patient in either a sitting or a conventional left lateral position. The flash should be on the right side of the midline when it is properly placed at the distal end of the stomach. Approximately 400-600 cc. of air is gently introduced into the stomach through the air hole in the metal cap. Three pictures are taken from three different angles at any one level. The camera is then pulled up 1-2 cm. and three more pictures are taken. This procedure is repeated until the cardiac end is reached.

Material

Seventeen patients who were admitted to the gastroenterology section of the Veteran's Administration Hospital, Lincoln, Nebraska, or referred to that section for consultation, were included in this study. Each of these patients had a complete x-ray study of the gastrointestinal tract; in ten cases gastroscopic and esophagoscopic examinations were performed, using an Eder-Palmer transesophagoscopic gastroscope with Bernstein modifications, and an Eder-Hufford esophagoscope.

The results of gastrophotography, x-ray studies, and gastroscopic examinations were compared. The x-ray diagnosis was confirmed by two radiologists who had no previous knowledge about the cases. The gastrocamera pictures were personally reviewed by Dr. Toshio Honda. The interpretation was made without prior knowledge of the results of the gastroduodenal series or gastroscopic examination. Table I summarizes the seventeen cases.

Results

In seven cases, the results of the gastrocamera study agreed with the diagnosis established by x-ray studies—an incidence of 41.2 percent. In six cases (Nos. 1, 2, 9, 13, 14, and 15) the gastrocamera studies revealed abnormal findings in the stomach which were not seen by x-ray (47.06 percent). In seven cases, x-ray studies revealed abnormal findings which were not reported by the gastrocamera.

The reasons for this are obvious. These abnormal findings were mostly external to the interior boundaries of the stomach: deformed bulbs, pancreatic calcification, widening of duodenal loops, or hiatal hernia. Nevertheless, in three cases (Nos. 1, 16, and 17), the gastrocamera studies added supplementary findings of gastritis in association with duodenal ulcer. Due to a technical error, in one case (No. 10) the gastrocamera failed to produce a picture (Table II). The normal and abnormal photographs are demonstrated in Figs. 3 and 4.

The results of gastroscopic and esophagoscopic examinations seemed to correlate with the gastrocamera findings in all cases except cases Nos. 12 and 16. The total number of the series is far too small however, to permit any significant statistical evaluation.

Discussion

Most of the reports of the results of gastrocamera studies are from Japanese workers and from the University of Wisconsin group.[3, 7, 8, 9, 12] Comparison of the positive results seems to show that the gastrocamera yields slightly more favorable results than does x-ray and far better results than do endoscopic procedures. A final conclusion is at this time seemingly premature, since perfection of the gastrocamera has yet to be achieved.

In the United States, Morrissey et al reported 82.6 percent positive re-

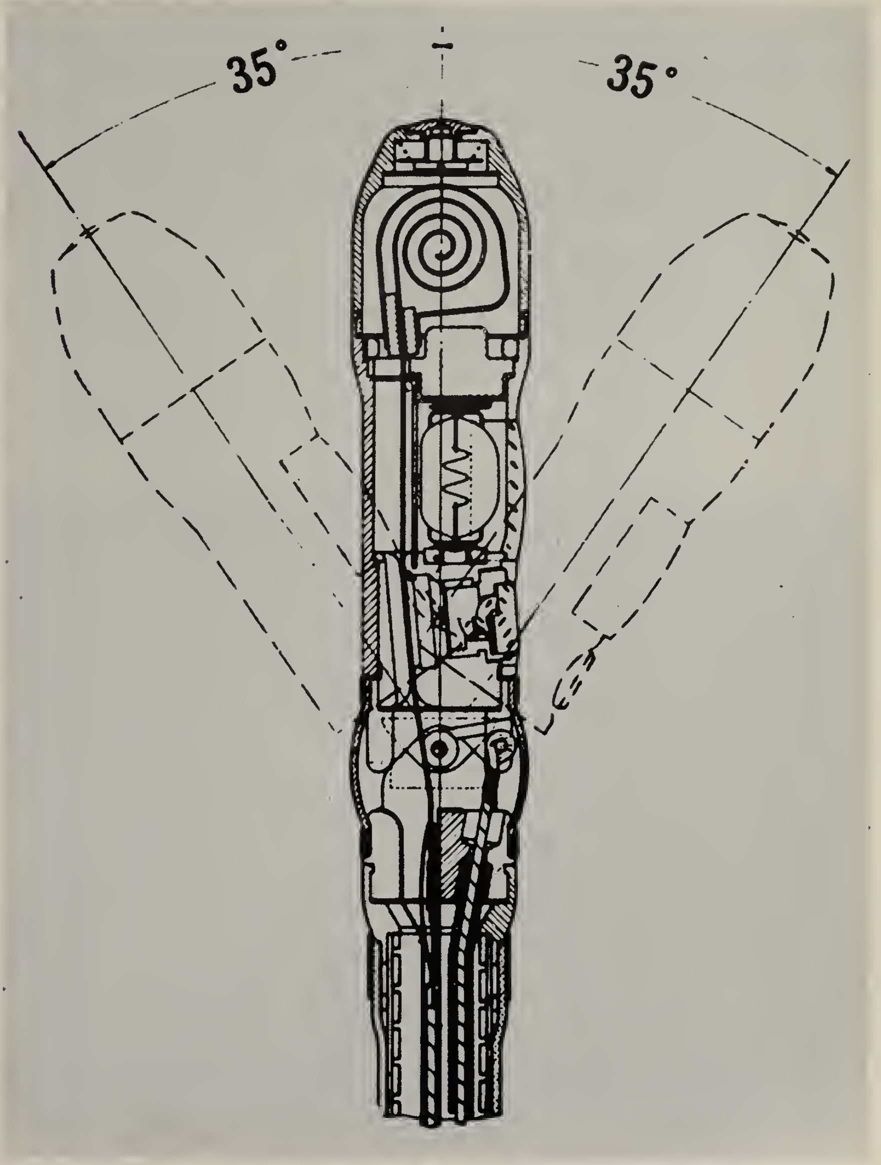


Fig. 2. Schematic drawing of gastrocamera, indicating exposure arc.

sults by means of the gastrocamera in benign lesions of the stomach, compared with 56.5 percent by x-ray and 43.5 percent by gastroscope.[7] The positive x-ray finding seems to be much below one previously quoted.[2] In the subsequent report, this figure was increased to 66 percent.[3] The addition of the gastrocamera to x-ray studies increased the frequency of positive findings to 95 percent.[3] From Australia, Milton et al reported his experiences with 250 cases of gastric pathology in which he obtained a very high percentage of accuracy with the gastrocamera, especially in the diseases of the antrum and the lesser curvature.[8]

Several intensive studies from Japan revealed a high frequency of positive results in both benign and malignant gastric lesions. One reason for this is that the gastrocamera gives a wider angle of view—i.e., 80 degrees—as compared with the newer flexible gastroscope or fiberscope, which gives a much narrower view. Consequently, the operator can ascertain better landmarks and reference points for identification of the lesion. Malignant lesions, as seen in our series (cases No. 6 and 7), appeared as discolored areas with a dull surface, or a raised, fungating type in contrast to the healthy pinkish, shining, normal mucosa.

According to Perna,[9] the lesion in the upper third of the stomach is easily photographed. This is not the experience with x-ray and gastroscopic examinations. The cardiac end is known as a blind area to endoscopists. This area can be photo-

TABLE I

Summary of Cases

Pt. No.	Symptoms	Diagnosis	X-ray	Gastroscopy	Gastrocamera
1	Abdominal pain; hematemesis	Esophageal varices? Duodenal ulcer (D.U.)	Duodenal ulcer	Gastritis	Atrophic gastritis
2	Low-back pain; abdominal pain	Arthritis? Peptic ulcer; D.U.	Negative	——	Gastritis
3	Abdominal pain	Duodenal ulcer	Deformed bulb; pancreatic calcification	Not done	Normal
4	Pain in RUQ	Cholelithiasis? D.U.?	Irritable bowel	Not done	Normal
5	Epigastric pain	D.U.?	Antral carcinoma	Not done	Antral carcinoma
6	Abdominal pain; tarry stool	Gastric carcinoma	Antral gastritis; CA carcinoma	Antral carcinoma	Antral carcinoma
7	Abdominal pain; vomiting	D.U.?	Wide duodenal loop	Not done	Negative
8	Bloating; abdominal pain	Hiatal hernia	Hiatal hernia; deformed bulb	Not done	Normal
9	Dermatitis, on steroids; sudden abdominal pain	Steroid ulcer	Negative	Not done	Bleeding ulcer?
10	Abdominal pain; vomiting	D.U.	Pre-pyloric ulcer	Antral gastritis; ulcer	Unsatisfactory
11	Epigastric pain; tarry stool	Peptic ulcer	Gastric ulcer	Gastric ulcer at body of stomach	Ulcer
12	Lymphosarcoma of stomach with gastric resection and gastroenterostomy	Lymphosarcoma	Ulcer in anterior wall or stomach	Small ulcer in anterior wall; stoma normal and patent	Negative
13	Hematemesis; abdominal pain	D.U.; rule out varices	Negative	Ulcer in lesser curvature	Gastric ulcer
14	Epigastric pain; hematemesis	D.U.	Hiatal hernia	And esophagoscopy hiatal hernia esophagitis gastric ulcer	Gastric ulcer
15	Acute abdominal pain	D.U.?	Negative	Ulcer at lesser curvature	Ulcer at lesser curvature
16	Epigastric pain; hematemesis	D.U.	Ulcer at bulb	Negative	Gastritis with superficial hemorrhage
17	Abdominal pain	D.U.	Deformed bulb	Gastritis	Superficial gastritis

TABLE II

Results of Gastroscopy, X-ray, and Gastrophotography

Total Cases	Diagnosis by X-ray	Diagnosis by Gastroscopy	Diagnosis by Gastrocamera
17	11 Cases	9 Cases	11 Cases
	Duodenal ulcer .. 5	Duodenal ulcer .. 0	Duodenal ulcer .. 0
	Gastric ulcer 3	Gastric ulcer 6	Gastric ulcer 5*
	Gastric carcinoma 2	Gastric carcinoma 1	Gastric carcinoma 2
	Gastritis 0	Gastritis 2	Gastritis 4
	Hiatal hernia 2		

* Case No. 10: Photographs from the stomach were of quality too poor to permit an evaluation.

graphed by the gastrocamera in the "tip up" position.

Sixty-two cases of gastric carcinoma in Finby's series of 269 proven cases had lesions located in the proximal third of the stomach; 13 percent of lesions in these 62 cases were missed by conventional methods of x-ray studies.[10] Hara et al, using the gastrocamera and x-ray studies in 107 cases of proven gastric cancer, reported positive results by both methods in 85.9 percent. The gastrocamera failed to demonstrate the lesion in 6.5 percent, while the failure rate of x-ray was 7.4 percent.[11] However, they did not report the location of the carcinoma. The same study showed the efficiency of the gastrocamera in detecting small or shallow ulcers which were missed completely by x-ray.

Another area where the gastrocamera is more helpful is in establishing the diagnosis of superficial gastritis, atrophic gastritis, or gastric atrophy. The mucosa is usually pale and flattened, with occasional small hemorrhagic spots. Prior to the availability of the gastrocamera, we depended entirely on gastroscopic findings of gastritis. The gastroscopic findings do not correlate with the histological changes.[2, 12] Only 76 percent of gastritis diagnosed by endoscopic examinations could be confirmed histologically,[12] and only in atrophic gastritis can one see a fairly close correlation between gastroscopy and biopsy.[13]

Honda reported 55 cases of atrophic gastritis by gastrocamera, 92.5 percent of them confirmed histologically.[14] Cases 1, 16, and 17, in our small series, showed evidences of atrophic gastritis and superficial gastritis, as interpreted by Dr. Honda, which were not reported by x-ray. Milton [8] shares this experience.

Having a permanent picture attached to the patient's chart, furthermore, as a part of the permanent record, will enable the surgeon to study the size, inflammatory changes, or characteristics of malignant lesions; in some cases it may be of some help in the actual operative procedure.

These evidences seem to support the fact that the gastrocamera is a useful diagnostic tool which, in an experienced hand, can increase the degree of accuracy in the diagnosis of gastric lesions. It is especially useful in studying gastritis, small ulceration or erosion, polypoid lesions, prolapse of gastric mucosa (as reported by Milton [8]), lesions in the proximal one third of the stomach, and lesions in the antrum and lesser curvature, and in demonstrating the malignant characteristics of the lesion, especially if it is less than 2 cm. in diameter.

Japan has the highest incidence of gastric cancer in the world, the 1957 death rate from this entity being 107 per 100,000, whereas the death rate in the U.S.A. in 1962 from the same disease was 10 per 100,000.[11] The high incidence might result from the fact that the gastrocamera has been widely used in Japan since 1950 and early detection of the lesion will subsequently raise the rate of identification of this disease.

Evaluation

It is rather unlikely that this instrument will replace the x-ray studies, but by adding the gastrocamera to the x-ray study one can obtain a high degree of success in demonstrating the lesion. The camera can easily be introduced into the stomach, and the electric flash does not cause any damage to the mucosa.[8]

We have not encountered any difficulty in inserting the camera into the stomach, even in one patient who refused gastroscopic examination. Our 11.7 percent failure rate is due to poor position or technical error, and is in the range reported by Milton (13 percent). Naturally a few failures are inevitable, but as one gains more experience the overall failure rate should fall below the 5 percent mark.

The camera has disadvantages. Taking a good picture requires meticulous attention to position and to the amount of air in the stomach. This is a blind procedure; one can only

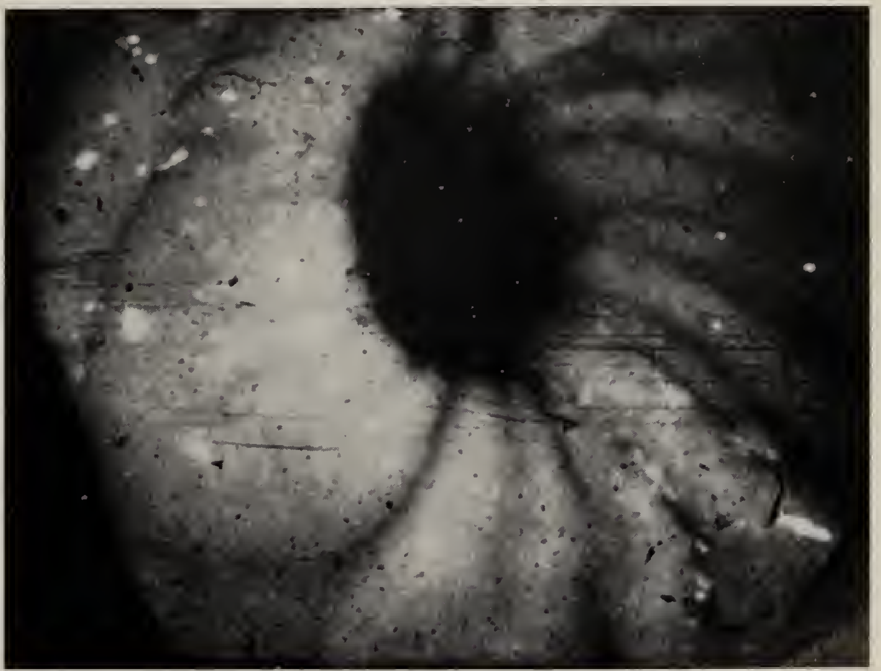


Fig. 3. Normal peristaltic wave process through antrum and pyloric canal.

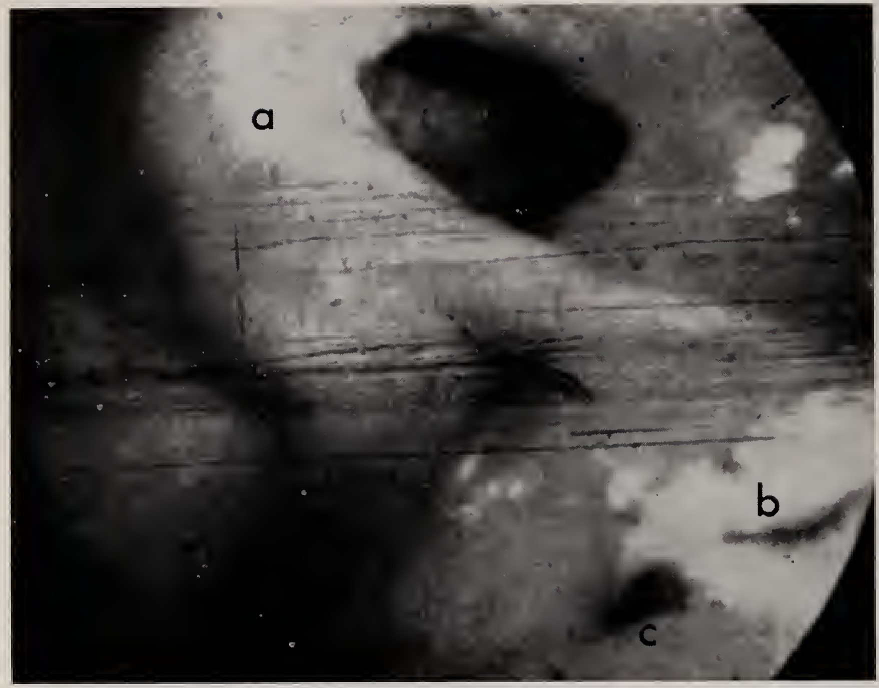


Fig. 4. Gastric lesions: (a), antral carcinoma; (b), and (c), areas of hemorrhage.

judge the position of the camera by observing the electric flash through the anterior abdominal wall, taking into consideration the shape and size of the stomach as previously seen by x-ray. It is difficult to do the procedure in an extremely obese patient.

It is difficult to take a good picture from the cardiac end of the stomach. The type GTF gastrocamera is now going through a period of testing. This new type will permit one to do a gastroscopic examination and intragastric photography simultaneously.

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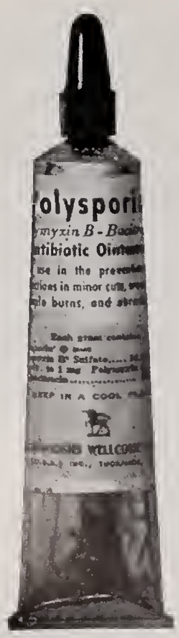
- **The Olympus Optical Company, 845 Hatagaya-Haramashi, Shibuya-Ku, Tokyo, provided engineering designs for the gastrocamera.**



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Stenosing Small-Bowel Ulceration

Lankenau Hospital surgeons, reporting three unusual cases of nonspecific partial obstruction, describe symptoms, procedures, pathology findings

DRS. JOHN E. HOPKINS AND
J. MONTGOMERY DEAVER

Philadelphia, Pennsylvania

In 1963, at Lankenau Hospital, three unusual cases of partial small-bowel obstruction, found at laparotomy to be caused by a narrow "ring-like" stenosis, necessitated operation and resection. In each instance, the characteristic symptomatology of partial, low, small-bowel obstruction was evident. Between the symptomatic episodes, the patients were well, and the question (in one instance especially), arose as to the possibility of feigned or psychosomatic symptoms. It was initially our impression that these cases represented a most unusual type of localized, healed regional enteritis,[1-5] and, on reviewing two of the cases and their slides, the Armed Forces Institute of Pathology concurred in this belief.

Since we had not previously encountered this type of localized disease, however, we considered other differential diagnostic possibilities besides localized regional enteritis—including primary nonspecific ulcer of the small bowel,[6-9] tuberculosis of the small bowel,[10] segmental infarction,[11] and late results of irradiation therapy.[12] From the gross appearance and histological aspects, the characteristics of this possibly new entity do not fulfill any of the necessary criteria for the other differential possibilities which have been described in the literature for many years.

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Current literature [13-20] indicates that similar cases are being identified with increasing frequency and that enteric-coated potassium, given concomitantly with thiazide diuretics, is the likely etiological agent; in a number of cases, however, no history of such drug ingestion has been elicited, and the etiology of the small-bowel stenosis remains an enigma.

Case Report No. 1

A forty-two-year-old woman was admitted on January 13, 1963. Her chief complaint was recurrent, crampy abdominal pain and swelling, of six months' duration. Frequent injections of narcotics had been necessary for relief of pain. In 1943 she had had an appendectomy, followed in 1944 and again in 1948, by operations for lysis of adhesions. Repeated plain films of the abdomen, and intravenous pyelogram, barium enema, and three upper gastrointestinal series with small-bowel studies were all normal. After she had spent two weeks in the hospital, with no improvement, a laparotomy for the postoperative adhesions causing partial intestinal obstruction seemed advisable.

At laparotomy on February 2, 1963, there were minimal nonobstructing adhesions of the omentum to the anterior abdominal wall and between a few loops of terminal ileum to the cecum. The remainder of the small bowel was entirely free of adhesions. Approximately two feet above the ileocecal valve there were two constricted segments of ileum several inches apart (Fig. 1). Two narrow bands of induration, each 5 mm. in length, were palpable and visible in the wall of the bowel, completely encircling it and causing associated proximal distention of the gut and collapse of the gut distal to these ring-like segments of obstruction. The bowel between these two constricting sites, and proximal and distal to these areas, was grossly normal (Fig. 2). No mesenteric adenopathy or thickening was noticeable and the serosa was intact. Resection was performed.

The histological report was as follows: "Two areas of stricture with superficial ulceration. The intramural fibrotic changes with plasma cells and eosinophiles are unusual but are compatible with regional enteritis."

Case Report No. 2

On July 11, 1963, a sixty-six-year-old male was admitted with a complaint of epigastric pain, of one month's duration. The pain was recurrent and was associated with abdominal distention. He had had a gradual loss of appetite for several months and had restricted his diet to liquids, with a subsequent weight loss of eighteen pounds. He was very thin, and the right upper quadrant of his abdomen was tender. We suspected a neoplasm of the stomach; an upper gastrointestinal (G. I.) x-ray series showed distended loops of jejunum and ileum (Fig. 3). On the 24-hour film, residual barium was still evident in the jejunum and mid-ileum, but most of it had progressed to the colon.

On July 16, 1963, the patient was operated on, with the preoperative diagnosis of an obstructing lesion of the ileum, probably neoplastic. The dilated ileum was followed to a clearly demarcated, indurated, and encircling obstructing lesion, 8 mm. in length (Fig. 4). The serosa and mesentery were normal, and the small bowel distal to this area was narrow and collapsed. Six inches of ileum were resected and an incidental appendectomy was performed. On gross examination of the specimen, there was stenosis and induration at the mid-portion of the resected segment of terminal ileum. The mucous membrane was covered with a yellow exudate in the stenosed

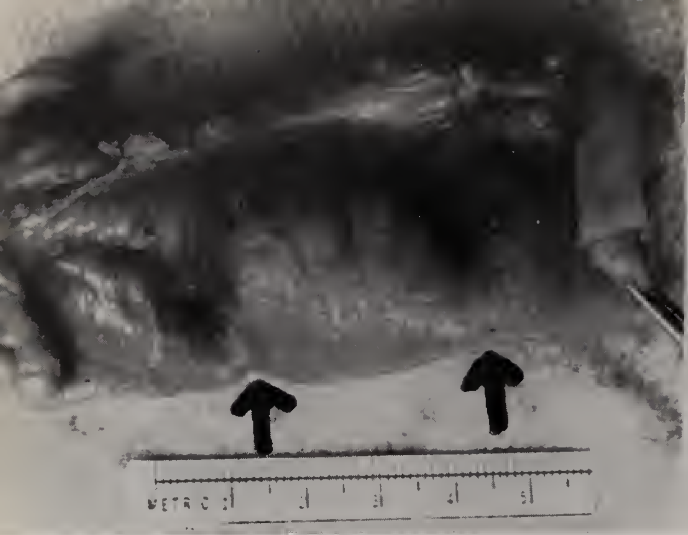

Fig. 1. Resected segment of terminal ileum, revealing two sites of stenosis.

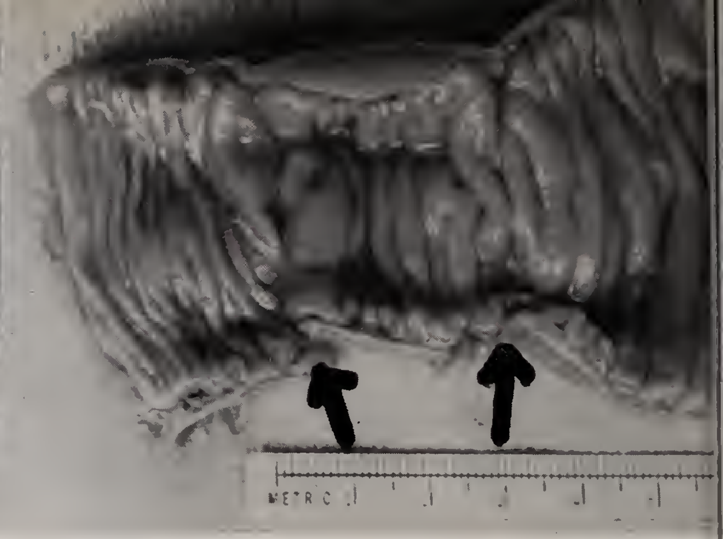

Fig. 2. Intraluminal aspect; normal mucous membrane between, and flanking, stenotic areas.

area (Fig. 5). Microscopically there were cicatrix formation and fibrosis, with a localized area of mucous membrane ulceration (Fig. 6). The pathology report was as follows: "Chronic stenosing ulceration compatible with a long-standig case of regional ileitis."

Case Report No. 3

In October, 1963, a forty-eight-year-old woman was admitted for the study and treatment of hypertension and hypothyroidism. A barium enema study, performed because of a history of constipation, was normal, and the patient was subsequently discharged from the hospital.

A week later (on November 9, 1963), she was readmitted because of abdominal cramps and vomiting. The cramps were diffuse, recurrent, of two days' duration, and accompanied by vomiting and later by watery diarrhea. An appendectomy had been performed in 1952.

The abdomen was distended and tympanitic, with no palpable organs or masses. Rectal examination disclosed hard fecal material, and the examining physicians believed that her symptoms were related to fecal impaction after barium enema, hypothyroidism, and dehydration. Levine tube decompression was used for three days, and intravenous fluids were administered. A plain film of the abdomen on the day of admission revealed dilated loops of small bowel. Symptomatically, the patient improved progressively, so that intestinal decompression was discontinued. On November 14, 1963, an upper G. I. x-ray series was obtained which revealed large loops of distended small bowel, (Fig. 7); a 24-hour film showed very scant passage of barium through the small bowel.

On November 15, 1963, surgery was performed, and dilated loops of small bowel were immediately apparent. As the loops of small bowel were followed distally, they led to a constricting and encircling ring-like site of obstruction, 5 mm. in length, in the mid-ileum, (Fig. 8). Resection was performed. The pathology report on the gross examination was as follows: "A segment of small intestine measuring 11.5 cm. in length and 7 cm. in circumference at the wider end and 4.5 cm. at the other end; 7.5 cm. from the dilated end there is a rather firm,

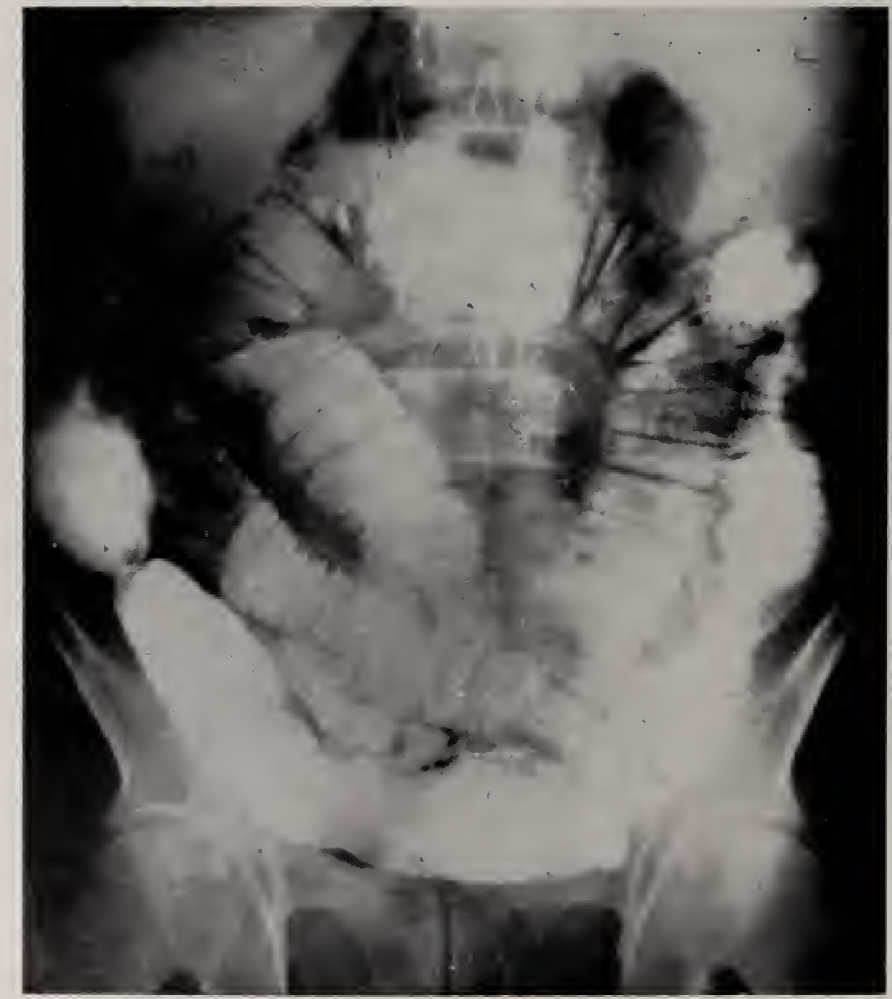

Fig. 3. Upper gastrointestinal progress film revealing distended small bowel and site of stricture in right lower quadrant segment of terminal ileum.

red area, where the circumference narrows to 3 cm. This extends a distance of only 5 mm." (Fig. 9).

The histologic report subsequently read: "Small bowel ulceration with cicatrizing ileitis, compatible with regional enteritis" (Fig. 10).

Comment On Cases

In the first case, because of the prolonged period of repeated episodes of abdominal pain requiring narcotics, alternating with intervals of apparently complete recovery, it was difficult to conceive that organic disease existed; psychiatric evaluation had been requested before surgery. Repeated x-ray studies had failed to indicate the presence of partial small-bowel obstruction. Subsequent review of her office management disclosed that she had been on hydrochlorothiazide (Esidrix-K) off and on in the preceding year, for mild essential hypertension.

In the second and third cases, radiological studies revealed definite evidence of partial small-bowel obstruction, and prompt surgical exploration and resection were performed. The second case had received chlorothiazide (Diuril) for four days in November, 1962, but had not received potassium in any form. The third case, as far as could be determined, had received hydrochlorothiazide (Hydrodiuril) twice a day for two days, several weeks prior to surgery, but had not at any other time been on diuretics and/or potassium.

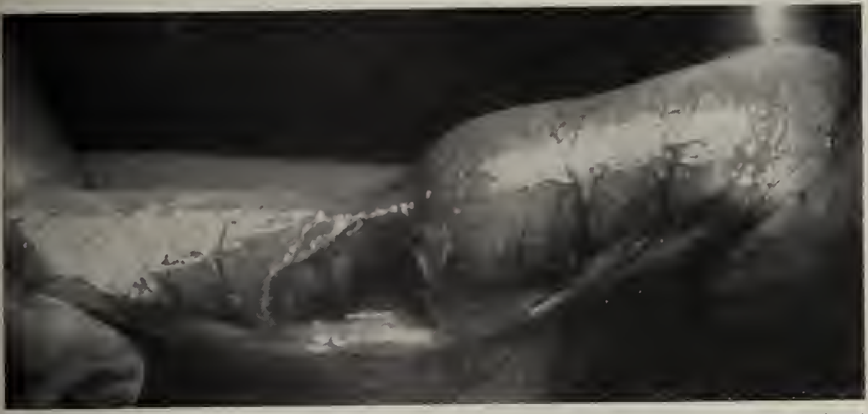
Fig. 4. Terminal ileum with ring-like stenosis, proximal distention, and distal collapse of small bowel.

Discussion

In September, 1964, Lindhomer, Nyman, and Raf,[13] of Stockholm, Sweden, published a preliminary report entitled *Non-Specific Stenosing Ulcer of the Small Bowel.* The occurrence of four cases of the same type within the short period of two months suggested to them that these peculiar lesions might have had a common origin. Thus they considered the possibility that some drug could have caused the localized intestinal irritation and resultant changes. All four patients had received thiazide derivatives. On further study, the investigators found twenty patients to have had this stenosis of the small intestine; and seventeen had received—and three *may* have received—thiazide medication. Most of the patients had concurrently been treated with potassium chloride. Fourteen of the twenty cases had occurred within the preceding eighteen months.

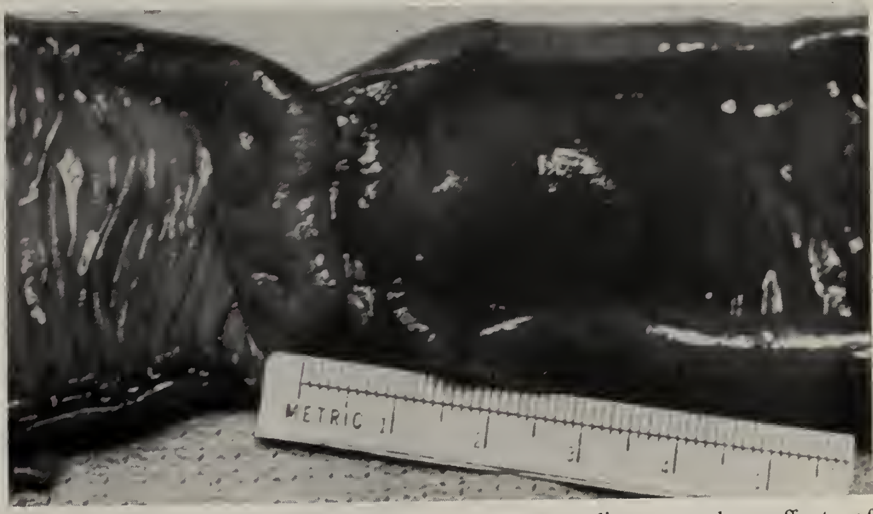

Fig. 5. Intraluminal aspect of terminal ileum, revealing secondary effects of proximal distention, ring-like stenosis with superficial mucosal ulceration, and normal mucous membrane distal to site of obstruction.

In November, 1964, Baker, Schrader, and Hitchcock,[14] of Minneapolis, Minnesota, published an article entitled *Small Bowel Ulceration Apparently Associated with Thiazide and Potassium Therapy".* Independently, they had arrived at a conclusion similar to that of the group from Sweden, since in a fifteen-month period, twelve patients with ulcerating, predominently stenosing and obstructing lesions of the small bowel had been treated on the surgical service. They found an apparent correlation with enteric-coated potassium chloride medication, as all of their patients had cardiovascular disease in varying degrees, and eleven of the twelve patients were receiving enteric-coated potassium chloride, either in combination with hydrochlorothiazide therapy or supplementary to it. The duration of this therapy had varied from eight days to thirty-three months before operative intervention was necessary.

With this disclosure of a possible drug-induced intestinal lesion, the Food and Drug Administration held a conference[15] November 17, 1964, with Merck Sharpe & Dohme and Ciba pharmaceutical companies to investigate, and to obtain further information. They recognized that there was a suggested but unproved relationship between the development of the lesion in some patients and orally adminsitered diuretics or potassium therapy. An intensive hospital survey was carried out by these two drug companies, to determine (1) the frequency of ulcerative-obstructive lesions of small intestine, (2) the pos-

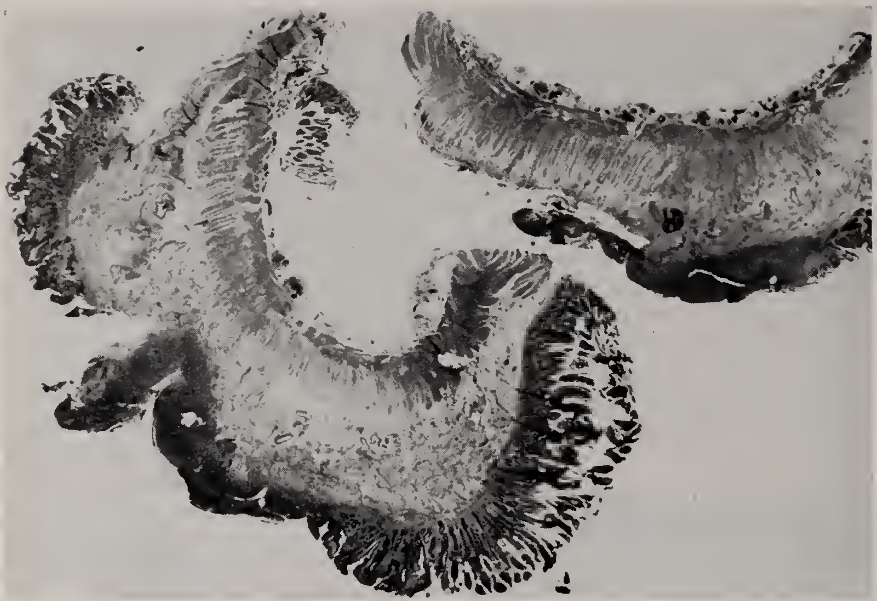

Fig. 6. Low-power magnification of area of small-bowel stenosis, revealing superficial mucous membrane destruction.

sible relationship between the therapeutic administration of the diuretics or potassium and the development of the lesion, and (3) any unusual geographic distribution of the lesion. The results of this combined study of ulcerative-obstructive lesions of the small intestine were published in *The Journal of the American Medical Association* for February 22, 1965. A retrospective survey conducted in 488 hospitals in the United States and abroad obtained reports of 484 patients with this lesion. Of these, 206 patients (43 percent) did not receive oral diuretic therapy of potassium salts; 275 patients (57 percent) had received potassium or a diuretic, or both.

There appears to be an increase in the number of reported cases of stenosing ulceration of the small intestine, whether or not associated with specific medication. Nevertheless, it was felt that the incidence must be extremely low, considering the millions of patients taking diuretics and potassium.

Experimental studies by the pharmaceutical companies have disclosed that in monkeys, oral administration of potassium salts, alone or in combination, causes ulceration of the gastrointestinal tract, which mimics the condition found in human beings. Thiazides alone did not produce such changes. Although the ulcerative-obstructive lesions of the small intestine may occur in the absence of any specific medication, the available data from clinical studies and findings in animals tend to implicate high local concentration of potassium. Because of the infrequency of this disease, the companies did not deem it necessary to restrict the production of potassium formulations, but they did believe that information on the possible complications should be publicized and noted on the medication's label. Should symptoms arise in a patient on potassium therapy, the medication should be discontinued immediately.

In 1964, no cases similar to those described above were encountered at our hospital. In February, 1965, however, a seventy-nine-year-old woman was admitted with a one-week history of cramping abdominal pain, anorexia, constipation, and vomiting. She was in emergent status, with a distended, silent, tender abdomen. After preoperative preparation, exploratory laparotomy was performed for a suspected perforated viscus, but on exploration, a ring-like stenosis of the terminal ileum was identified and resected. This patient had been on Digitoxin and Hydrodiuril with potassium, daily, for thirty-two months.

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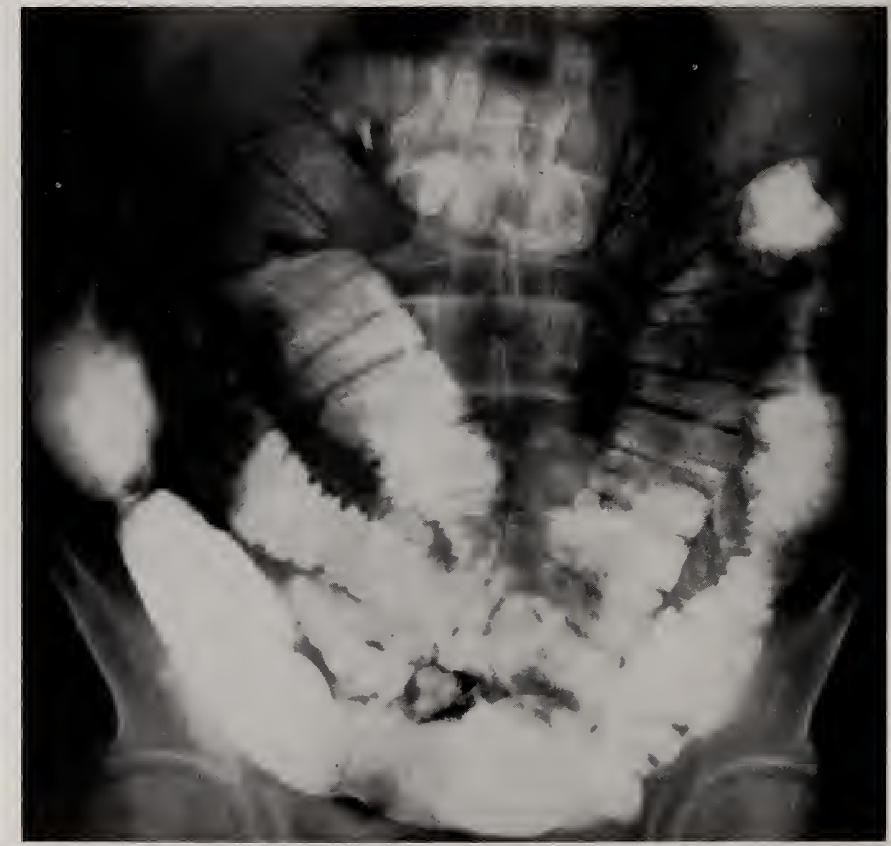

Fig. 7. Upper gastrointestinal x-ray series, revealing marked dilatation of proximal small bowel.

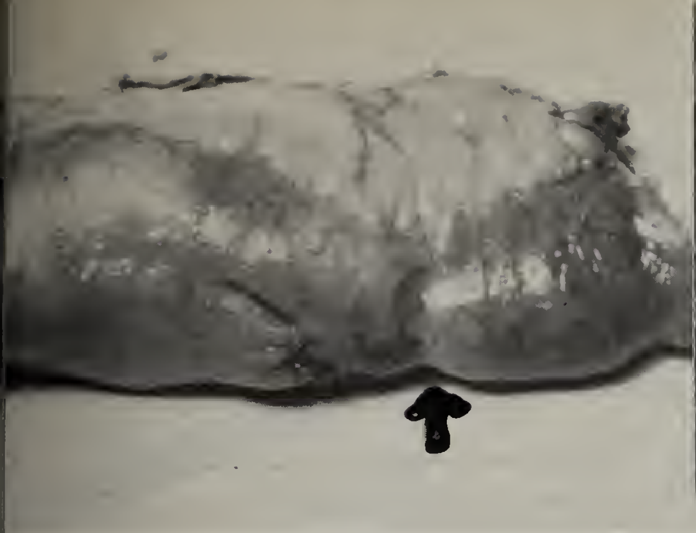

Fig. 8. Resected segment of terminal ileum, with ring-like stenosis of the site of obstruction.

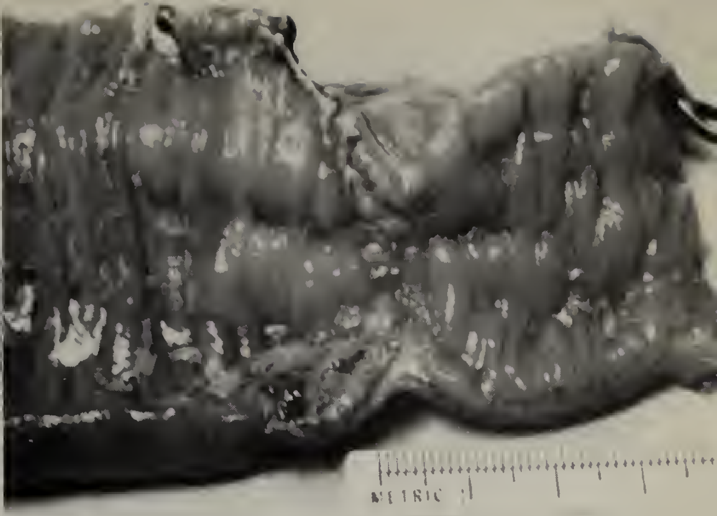

Fig. 9. Mucous membrane aspect; very narrow area of stenosis, with superficial mucosal ulceration.

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• This paper was read before the Philadelphia Academy of Surgery in April, 1965, and originated in the Lankenau Hospital department of surgery. Requests for reprints should be sent to Suite 215, Lankenau Medical Building, Philadelphia, Pennsylvania 19151.

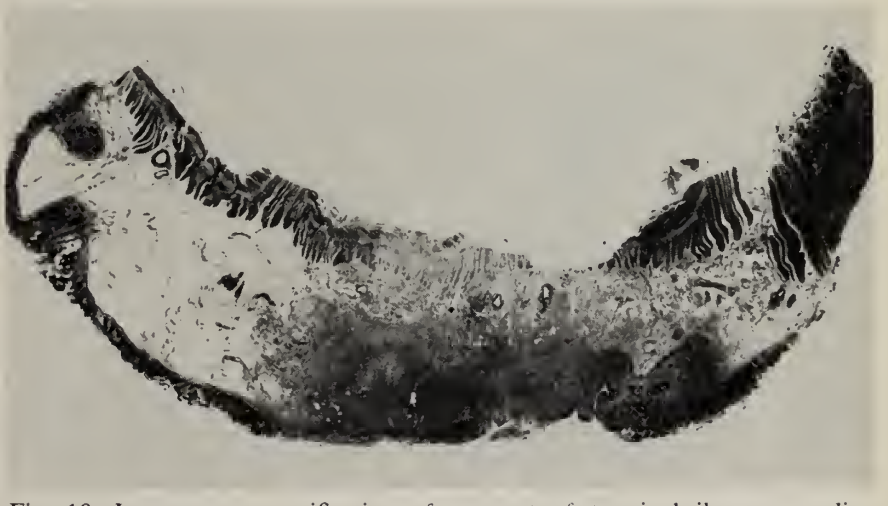
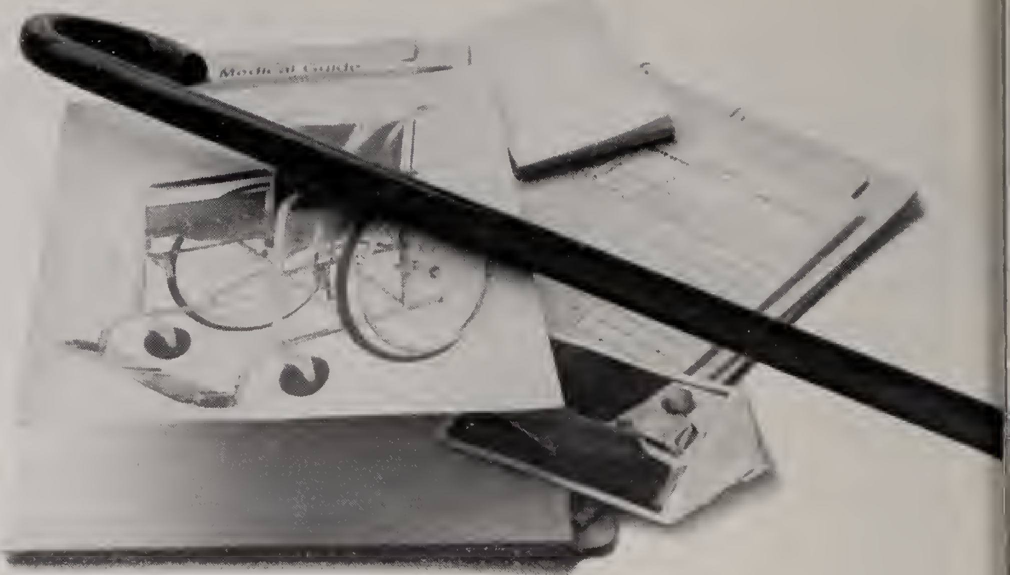


Fig. 10. Low-power magnification of segment of terminal ileum, revealing mucosal ulceration, submucosal inflammatory infiltration, and uninvolved musculature.

No physician, insofar as he is a physician, considers his own good in what he prescribes, but the good of his patient; for the true physician is also a ruler having the human body as a subject, and is not a mere money-maker.

The Republic, Book I,
Plato, 427-347 B.C.



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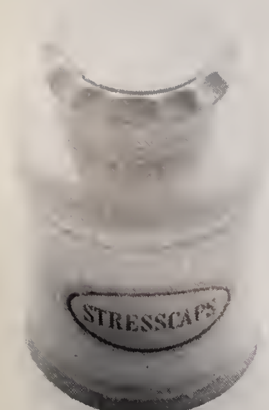

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A Clinicopathological Conference

Massive Lung Cavitation, Complicated By Jaundice and Splenomegaly

Case Report

A fifty-nine-year-old woman was in good health until six weeks before admission, when she developed anorexia, cough productive of large amounts of thick, white sputum, and a thirty-pound weight loss (but no hemoptysis, cardiovascular symptoms, or chest pain). She had progressive weakness and dyspnea with exertion, and developed mild night sweats one week before admission.

Review of systems and family history was not remarkable. There was no exposure to tuberculosis. She had had an appendectomy in 1935, an oophorectomy in 1944, and a hysterectomy in 1948. In 1927 she had a bout of polyarthritis which she was told was rheumatic fever, but when she was seen at Falk Clinic in 1958 (for insomnia), no murmur was heard. She was taking no medication.

Physical examination was as follows: Blood pressure (B.P.), 135/80; pulse (P.), 95; respiration (R.), 16; and temperature (T.), 38° C. Although thin, she was well developed, and in no distress. Her skin was warm, with no rash. The pupils and fundi were normal. There was no lymphadenopathy. The thyroid was not felt. There was some dullness over the right upper lobe posteriorly, with decreased breath sound over the right upper anterior chest.

The heart was enlarged, with the point of maximum impulse (PMI) in the anterior axillary line; there was no gallop or murmur. The abdomen was voluntarily tensed, but nontender. No liver edge was felt, but increased dullness was percussed three fingerbreadths below the right costal margin. No splenomegaly was noted. Other findings, including pelvic and rectal, were within normal limits, except for the absence of the uterus and adnexa. Stool guaiac was negative. There was no clubbing or edema.

Laboratory Data

Hemoglobin (Hb), 10.0 gm. percent; Hematocrit (Hct), 30 percent; white blood count (WBC), 13,000, with 84 percent polymorphonuclear neutrophil leukocytes (PMN), 13 percent lymphs, and 3 percent monos. The red blood cells (RBC) were normochromic, with "striking ovalocytosis." Platelets, 440,000; reticulocytes, 0.9 percent; Hb electrophoresis, AA, with normal F and A_2. Two lupus erythematosus (LE) preparations, negative. Fasting blood sugar (Fbs), 101 mg. percent; blood urea nitrogen (BUN) 10 mg. percent. Sodium (Na), 131 mEq./L; potassium (K), 4.2 mEq./L; chlorine, (Cl), 97 mEq./L; carbon dioxide combining power, 26 mM./L. Alkaline phosphatase, 1.6 Bessy units; total bilirubin, 0.4 mg. percent; bromsulphalein, 14 percent; cholesterol, 126 mg. percent; prothrombin time, 17 sec. (14.5 sec. control). Urinalysis, normal, with specific gravity, 1.011. Histoplasmin purified protein derivative Nos. 1 and 2, negative; protein-bound iodine (PBI), 4.1 gamma percent. Venereal disease research laboratories, (VDRL), nonreactive.

Febrile and cold agglutinins were negative, as were four sputum cytological examinations. Electrocardiogram (EKG) interpreted as normal. Three blood cultures were sterile. Sputum culture reported as heavy mucoid E. coli, moderate Citrobacter aureus. A transtracheal aspirate was sterile. Eleven sputum specimens for acid-fast bacilli (AFB) were negative by smear and culture. Protein electrophoresis (serum) showed a total of 7.2 gm. percent, with 2.5 gm. albumin, 0.8 gm. alpha_1, 1.0 gm. alpha_2, 0.9 gm. beta, and 2.0 gm. gamma globulin.

Initial chest film showed consolidation of the right upper lobe, pleural reaction along the interlobar fissure, and a suggestion of tissue breakdown within the consolidated area. Laminograms showed no cavity. Upper gastrointestinal series, barium enema, and intravenous urogram (IVP) were within normal limits.

Hospital Course

In view of the patient's history, and of daily temperature elevations to 38-39.5° C., the lesion was believed to be inflammatory. Bronchoscopy was performed, and culture of recovered secretions grew heavy Klebsiella pneumoniae, with normal cytology. The patient was placed on penicillin and tetracycline, but her course did not change. Hb. dropped to 8.0 gm. percent, with a persistent reticulocytosis of 3-4 percent. A liver biopsy was reported as normal, and a bone marrow showed only plasmacytosis (7 percent).

On January 3, 1965, a percutaneous lung neddle biopsy was performed, reported as granuloma, with acid-fast stains positive for organisms. The other antibiotics were stopped; isoniazid, 600 mg. daily, and pyridoxine, 50 mg. daily, were started. On January 19, 1965, a cavity with an air-fluid level was seen in the right upper lobe density, and streptomycin was added. The patient remained febrile, however, and was finally placed on 30 mg. prednisone daily. Her temperature returned to normal, she began to gain weight, and she was discharged on 600 mg. isoniazid and 15 mg. prednisone daily.

■ *This conference took place at Presbyterian-University Hospital, Pittsburgh. Participants included, from the University of Pittsburgh School of Medicine:* Clinician, *Jack D. Myers, M.D., professor and chairman, department of medicine;* pathologist, *Robert H. Fennell, Jr., M.D., professor of pathology; and* moderator, *Eugene D. Robin, M.D., professor of medicine.* Editors *were Drs. Robert S. Totten and Campbell Moses, associate professors in the School of Medicine.*

She did well until ten days after discharge, when she developed a painful stiff neck unassociated with fever, chills, or increased cough—although she noted a few flecks of blood in her usually gray-white sputum. Five days later, she developed a fever of 101° F., and was readmitted the next day. Review of systems revealed only that she had had some hoarseness and anorexia several days before admission.

Physicial examination: BP, 110/70; P., 140; R., 24; T., 38.7° C.

The patient appeared chronically ill; her skin was hot and moist, but had no rash or jaundice. The pupils and fundi were normal, as were the nose and throat. The neck was supple, but with voluntary resistance to motion, and localized tenderness lateral to the right sternomastoid muscle. Examination of the chest revealed dullness, bronchophony, and inspiratory and expiratory ronchi over the right upper lobe. The heart was felt to be enlarged, as before, with no thrill, murmur, gallop, or paradoxical pulse. Dullness to percussion was noted over the spleen and below the right costal margin, but again palpation was difficult because of voluntary guarding. The rest of the examination was within normal limits. The stool guaiac was negative.

Laboratory Data

Hb., 11 gm. percent; Hct., 35 percent; WBC, 162,000 with 81 percent PMN, 13 percent lymphs, and 6 percent monos. Urinalysis, normal. Fbs, BUN, serum glutamic oxaloacetic transaminase (SGOT), and lactic dehydrogenase (LDH), all normal. Na, 131 mEq./L; K, 4.6 mEq./L; Cl, 94 mEq./L. Lumbar puncture revealed an opening pressure of 220 mm. Cerebrospinal fluid (CSF) (patient not relaxed), clear, colorless, with one lymphocyte, protein, 42 mg. percent Dolmer nonreactive, and colloidal gold, 00112111000. Culture, including AFB, sterile; two sputa for cytology, negative. EKG, normal. Chest films, no change in the cavitary lesion in the right upper lobe, but cavitation present in the superior segment of the right lower lobe. Cervical spine films showed narrowing at C4-5, C5-6.

Hospital Course

After sputum culture was returned, the patient was placed on penicillin with immediate defervescence for two days, then return of a spiking temperature to 38-39° C. The neck pain was treated as a myositis (local heat used), and gradually subsided over five days. On the seventh hospital day, the patient developed bilateral conjunctivitis, with vesicles on the nose. Two days later, she developed vesiculobullous lesions 2.0-15.0 mm. in diameter on the arms, legs, trunk, and palms, with ulcerating areas on the tongue. She appeared quite ill. The spleen was definitely palpable. Penicillin was discontinued, and 150 mg. intravenous hydrocortisone was administered over 24 hours, the prednisone having previously been reduced to 5.0 mg. daily.

The patient's temperature dropped to normal, and the steroids were again slowly reduced to 10 mg. prednisone daily. The skin lesions became secondarily infected with coagulase positive Staphylococcus, which also appeared in the sputum. On April 17, 1965, she was placed on methicillin and tetracycline, with no recurrence of the skin lesions.

On April 22, 1965, a right scalene node biopsy was done; five nodes were reported as hyperplastic. No AFB were seen or grown from this. The WBC was in the 23,000-39,000 range, with 80-85 percent PMN and 10-20 percent bands. She refused bronchoscopy or other surgery, and gradually became weak and obtunded, until intravenous hydrocortisone (100 mg. daily) was restarted on May 11, 1965. Sputum on this day grew Klebsiella pneumoniae, and the patient was started on Kanamycin, 1 gm. intramuscularly daily for three days; the tetracycline was discontinued.

On May 20, 1965, she became jaundiced, and all drugs except steroids were stopped. Her bilirubin was 7.9 mg. percent total, with 5.0 direct. Alkaline phosphatase was 4.1 Bessy units, SGOT, 70. On May 26, 1965, she began to have bright red rectal bleeding which recurred intermittently over the next two weeks. She remained jaundiced and comatose, and finally on June 3, 1965, while being examined by the ward physician, ceased to breathe.

Differential Diagnosis

Jack D. Myers, M.D.: This has many characteristics of a detective problem involving what seemed, to the physicians taking care of this lady, a "mysterious death." On reading the protocol Dr. Metzger * has provided, we note various "foreign agents," any one of which might have been the guilty party. Interestingly enough, most of them are Germans: Klebs, Koch, and Wegener; but there is also Hodgkin. We must approach the mystery by picking out the cardinal features: consolidation leading to cavitation of the upper and eventually the lower lobe of the right lung, a respectable degree of cardiomegaly, and, toward the terminal phase of illness, (1) skin rash, and mucous membranes suggesting erythema multiforme; (2) splenomegaly; and (3) jaundice. These latter features can be considered together, and I emphasize, they occurred late in her illness (although some observers had thought earlier that she had splenomegaly). If we set these three factors aside, we are dealing with only two cardinal features—cavitation of the lung, and cardiomegaly.

The lung biopsy showed a granulomatous reaction (although nothing specific is said about this), and she had a scalene lymph node biopsy which showed only hyperplasia. Many cultures were taken, with widely varying results, probably the most informative being that of the tracheal aspirate, which was sterile.

In a fifty-nine-year-old woman, a primary consideration is whether or not we want to put all features of her disease into one diagnosis. Actually, great difficulty is involved in trying to attach cardiomegaly to cavitary disease of the lung. In any obscure illness with unexplained cardiomegaly, we must think of amyloidosis, but as far as I know, this condition is not associated with cavitary disease of the lung. I am therefore inclined to believe that the cardiomegaly is not part of the basic illness; possibly she had been hypertensive in earlier years, or she may have had one of those unexplained myocardial hypertrophies which occur in the Negro race. I now come down to one cardinal feature: differential diagnosis of remarkable cavitary disease of the lung. Let us examine the roentgenograms.

John H. Feist, M.D.: The heart is globular in both the PA and lateral projections. This may mean that both ventricles are enlarged, or, more remotely, that we are dealing with a process in the pericardium that obliterates the characteristics of the cardiac outline. The other notable feature is the striking homogeneous soft tissue density in the right upper lung field, craniad to the horizontal fissure. It contains at least one odd-shaped cavity, it involves portions of all three

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* Clyde Metzger, M.D., chief medical resident.

segments of the upper lobe, and it shows some loss of volume (as indicated by upward retraction of the horizontal fissure). There is moderate but definite pleural involvement along the lateral aspect of the right upper lobe.

Approximately one month later (Figs. 1 and 2), we find marked changes in the right upper lobe lesion: its size has doubled, the minor fissure bulges downward, and the upper margin of the lesion is fairly well defined—bulging upward, indicating that the process has expanded. The cavity is not visible. The pleural reaction also has become more intense. The heart status is unchanged and the remainder of the lung fields is normal.

About two weeks later, and following a needle biopsy of the right upper lobe, the lesion has expanded further and is peppered with cavities. At least one of two large cavities shows evidence of a fluid level, hence must communicate with a bronchus. The pleural reaction extends from apex to diaphragm, but the remainder of the lung is still free of disease. Three weeks later, many of the cavities have merged and become loculated; we now have one very large cavity with a fluid level that seems to reach the pleural line, surrounded by diffuse parenchymal infiltrate.

The next film, made on March 3, 1965, just before hospital discharge (Fig. 3), shows reaccumulation of the inflammatory right upper lobe infiltrate, sharper definition of the cavity (but without a definite fluid level), and increasing pleural reaction.

On readmission, the lesion has progressed and the cavities and surrounding reaction occupy the entire right upper lobe. The pleura is grossly thickened. The coalescing nodular infiltrate is beginning to involve the rest of the right lung, and a perihilar fibrotic element has appeared. The last examination on record (May 17, 1965), is a bedside film showing spread of the cavitary lesions to the remainder of the right lung. Finally, two interesting features are revealed by body section films on March 31, 1965. The first laminogram shows that there is no obstruction or gross disease involving the mucosa of the trachea and the larger bronchi. A more anterior cut (Fig. 4) shows one large cavity with its several daughter cells, containing structures of undetermined nature—probably a large central vessel and several fibrous septa.

Dr. Myers: A large cavitary lesion developing after some form of consolidation suggests a lung abscess. There are many reasons, however, for believing that this is not the ordinary pyogenic lung abscess. The sputum was purulent, but was never described as putrid; more importantly, the clinical course was wrong. The patient had no response to a variety of antibiotics effective against the usual pyogenic lung abscess. In addition (although this is not necessary), we have no background in this woman for a lung abscess. As you observed, the bronchial tree was open. There is no evidence for a foreign body, and the patient was not alcoholic. Without going into more detail, I'll abandon the concept that this is the usual pyogenic lung abscess.

In considering, next, whether or not this is another kind of infectious disease such as a granulomatous process which has broken down, we would have to deal with tuberculosis and a variety of fungal infections. The patient was treated for the first infection, without effect, and no real pathogens were ever found in her sputum, cultures of which showed, in sequence, E. coli, Staphylococcus aureus, and Klebsiella pneumoniae. None of these is particularly important, and I emphasize again that the transtracheal aspirate was sterile. Furthermore, I'm sure that cultures for acid-fast organisms and for fungi were made, as well as many smears, from which no positive data were reported.

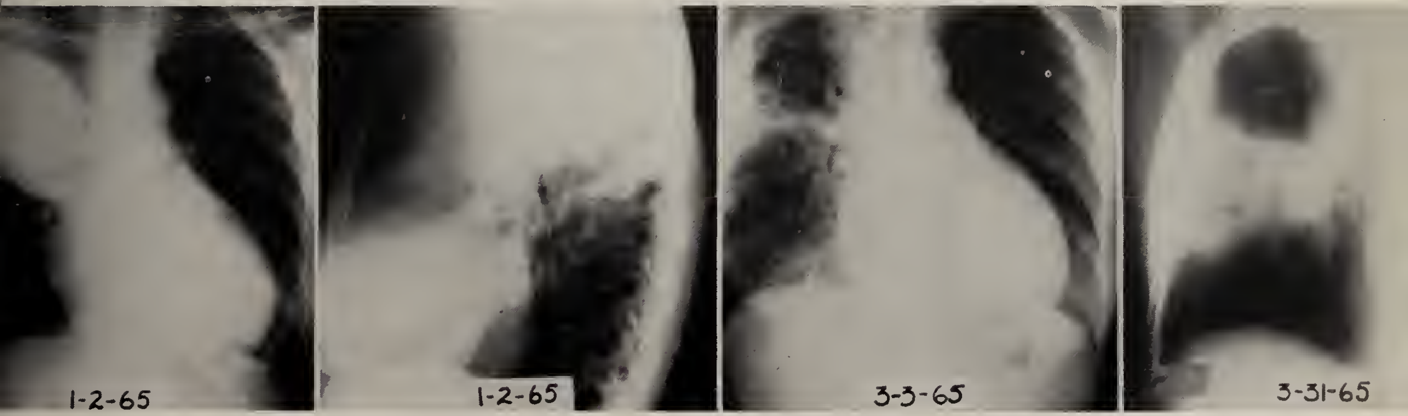
The only drug that helped her was steroid medication (well-known to be nonspecific), and I am therefore inclined to rule out the various granulomatous reactions, including the anonymous mycobacteria we might also consider.

I don't believe this cavity has an infectious origin, therefore we must consider noninfectious processes which can produce such cavitation, i.e., a process involving a great deal of tissue necrosis, with formation of fluid which she progressively coughed up. Such a process might become secondarily infected with a variety of not-very-pathogenic organisms such as those cultured. The most common process which undergoes such a necrosis with formation of the cavity is, of course, bronchogenic carcinoma, but the protocol is not a good clinical picture for that entity. Lacking real evidence of bronchial obstruction, we would have to say that the tumor itself grew, and then broke down. There are no evidences of metastasis from a tumor as far advanced as this. No tumor cells were seen on sputum study.

A process that does produce rather extensive pulmonary necrosis is Wegener's granulomatosis, lesions of which do cavitate, although not usually to the extent we see here. Also, most people with Wegener's have other

(Continued on page 46.)

Figs. 1-4. Roentgenograms demonstrating lesion changes over a period of three months.



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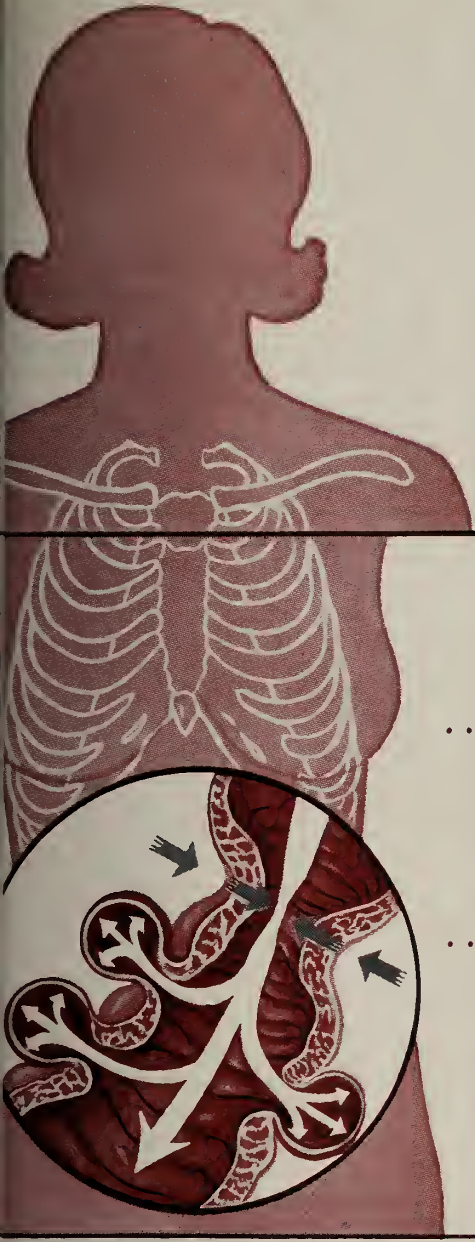

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SEARLE

Research in the Service of Medicine

(Continued from page 43.)

clinical findings which this case lacks: upper respiratory lesions of the same type as those in lungs, nose, sinuses, larynx, etc., and a progressive renal lesion, with uremia leading to death in the great majority of cases. With no uremia, and no abnormal findings in the urine of the patient in protocol, Wegener's granulomatosis doesn't seem reasonable.

Hodgkin's disease is another process which at times leads to extensive pulmonary necrosis,[1, 2, 3] and I believe this patient actually had pulmonary Hodgkin's disease. The literature describes at least a dozen cases which totally mimic this patient's picture. We expect Hodgkin's disease to appear diffusely in the lung in a nodular or at times a miliary fashion. This case clearly does not involve that.

Another form of Hodgkin's is endobronchial, producing bronchial obstruction, and entirely comparable in manifestations to bronchogenic carcinoma. A third form probably begins in the lymphoid tissue of the lung, with invasion of lung tissue (often in one site), producing extensive consolidation. In the typical Hodgkin's necrosing and cavitation, the right upper lobe is for some queer reason affected, the second favorite site being the left upper lobe. Almost invariably as the disease progresses, another lobe becomes involved, apparently by infiltration from more lymphoid tissue or from the initial lesion. This disease process extended into the right lower lobe.

Hodgkin's disease is almost never associated with what we would call systemic Hodgkin's disease. There is no generalized lymphadenopathy, and splenomegaly and hepatomegaly generally are not conspicuous. Patients with this form of Hodgkin's seldom survive more than two years. As in this case, the sputum is copious and somewhat purulent due to secondary invaders, but pathogens usually cannot be isolated. In one case of this form of Hodgkin's, tubercle bacilli were found; (we are aware of the disease's great propensity, as it changes the body's immune processes, to allow tuberculosis to flourish).

In another case, actinomyces bovis was found associated with the Hodgkin's lesion. (I mention these instances because an acid-fast organism is described as appearing in the biopsy, but we hear nothing more of it.) In this form of Hodgkin's, hemoptysis is usually conspicuous by its absence. This woman had only a few small hemoptyses. Although the Hodgkin's tissue necroses, producing the extensive cavity, blood vessels of any size do not do so. Possibly the laminogram showed the blood vessels that ran through this large area of lung, destroyed by the disease.

This form of the disease is seldom diagnosed in life, mainly because in considering Hodgkin's disease, we don't usually include this particular form. One diagnostic method which has recently come to our attention is expert cytology on bronchial secretions in which the "malignant" cells of Hodgkin's disease are seen. Although it is difficult to distinguish these cells from other kinds of malignant cells, a few people have by this means arrived at the correct diagnosis.[1]

I believe that the pulmonary lesion is more compatible with this possibility than are others I can think of. Now, do the various minor features of the case fit in? These began nonspecifically with fever, weight loss, neutrophilic leukocytosis, and anemia which had a hemolytic component, in view of the patient's reticulocytosis—all entirely compatible symptoms. (This form of Hodgkin's is regularly associated with a brisk neutrophilic leukocytosis—not with the leukopenia we may see in the more diffuse systemic form.)

I don't believe the ovalocytosis played a part in her illness. She had a low serum cholesterol, but this is in keeping with a chronic wasting illness. Her decreased serum albumin, increased serum globulin, and plasmacytosis of the marrow are perfectly in keeping. I mentioned that we don't anticipate finding lymphadenopathy, but perhaps the terminal hoarseness may have had that basis. If the splenomegaly had been present at the beginning, rather than only towards the end, we'd have a good point in support of Hodgkin's.

Systemic manifestations, although not usual, do occasionally occur; this also applies to the hepatomegaly which she had at the beginning. But the splenomegaly came along in train with erythema multiforme. By this time she had had many drugs, most of which are capable, through hypersensitivity, of producing erythema multiforme and/or splenomegaly: penicillin, methicillin, streptomycin, isoniazid (INH), kanamycin, and chlordiazepoxide, which is not listed in the protocol. I know of no way to dissect this maze of information. It is entirely possible, then, that the splenomegaly and the rash were manifestations of drug hypersensitivity. It is interesting also, however, that erythema multiforme occurs spontaneously in the course of Hodgkin's disease—a cutaneous manifestation we can regard clinically as equivalent to the pruritis which at times draws our attention to Hodgkin's.

This patient developed severe jaundice, with an elevated alkaline phosphatase. She had previously had some elevation of BSP, but was sick and febrile at that time. Again, we cannot tell whether the jaundice was part of her basic disease or was the result of her therapy. Some Hodgkin's patients with very little infiltration of the liver undergo massive hepatocellular necrosis with jaundice, a process that has never been clearly understood. Accordingly, Dr. Fennell may find hepatocellular necrosis of unexplained origin, and I could fit this in with my diagnosis. But again, unfortunately, the patient had been given a drug capable of producing this effect—tetracycline, a great deal of it orally, and during the final eight days, dosages intravenously, preceding the appearance of jaundice.

Finally, we have rectal bleeding, but it was preterminal. I doubt that it has any specificity. Probably with her long illness and her massive treatment with antibiotics and steroids, she had colonic ulcers or even pseudomembrane formation.

Basically, the problem boils down to the differential diagnosis of a large, multilocular cavitary lesion beginning in an upper lobe—without any good reason for the person to have it.

Dr. Myers' Diagnosis:

1. Hodgkin's disease involving lung and spleen
2. Hepatocellular necrosis (drug induced?)

Clinical Diagnoses:

1. Pulmonary tuberculosis
2. Cholangiolitic hepatitis (drug induced?)

Discussion

Eugene D. Robin, M.D.: The protocol is not clear as to the large clinical domination of the patient's care by virtue of the discovery of acid-fast disease. Do you regard these organisms as saprophytic, not producing infection, or do you believe that this patient had Hodgkin's disease of the lung, and tuberculosis, simultaneously?

There were several very careful sputum cytology studies; would it modify your view to learn that these were entirely lacking in malignant cells?

Dr. Myers: I have little further to say about these acid-fast organisms. Not very many were seen, nothing was cultured, and I have put them into perspective as best I can. I do not think this was a case of tuberculosis. I do not think these were the anonymous mycobacteria which we know produce many pulmonary lesions, plus cavitation. I don't think they were the cause of the disease. I've already suggested that they might be tubercle bacilli or actinomycosis secondarily involving the disease. I can't go farther. As for the cytology studies, I knew that several were negative. The accuracy of detecting Hodgkin's by cytology apparently is of an order of magnitude different from the detection of bronchogenic carcinoma. I know nothing of the technical problems, but clinically, we might suspect this to be the case. In bronchogenic carcinoma, there often is an endobronchial lesion shedding many tumor cells, which can be isolated. Perhaps endobronchial Hodgkin's can easily be diagnosed this way. But if this is actually parenchymatous disease of the lung, involving infiltration with necrosis, one would get dead or dying cells.

James Scheuer, M.D.: How does the finding of granuloma in the lung biopsy affect your diagnosis? What is your opinion of the role of the lung biopsy, and of what happened locally to this patient's lung?

Dr. Myers: I don't believe the lung biopsy had any relationship to what happened to the lung. Regarding the granuloma, one of the cardinal histologic findings in Hodgkin's disease is granuloma formation. When a pathologist has a small piece of tissue, it is very difficult for him to diagnose Hodgkin's disease; he must diagnose from a sizeable piece, in order to see the organization of the granuloma (Reed-Sternberg) cells. Therefore, a granuloma on biopsy is perfectly compatible with, but by no means distinctive of, this diagnosis.

Pathological Discussion

Robert H. Fennell, M.D.: The diagnosis in our files on this case is "Wegener's granulomatosis." Wegener's classic description of this condition in 1936[4] and again in 1939[5] referred to a triad of findings: (1) a necrotizing lesion of the upper respiratory tract (and also sometimes of the lower), (2) a vasculitis, and (3) progressive renal failure. Eponyms are often inappropriately used; if one is to use them, they should at least be close to their original implication. I cannot agree with the diagnosis of Wegener's granulomatosis in this case; it is, I believe, primarily a vasculitis. Dr. Klinge in 1931[6] described a condition he called "borderline forms of periarteritis," an appropriate name for the condition in protocol, since classic polyarteritis does not involve the lungs. There are cases, however, that do; one excellent review paper[7] reports that 15 percent of their cases did have pulmonary involvement.

The other term sometimes used for the form of vasculitis not involving the lungs but involving small vessels (particularly veins), is "allergic" or "hypersensitivity" angiitis.[8] The latter term is not particularly appropriate for this case, because small muscular arteries are primarily damaged, and the size of the vessels involved, therefore, best suits the diagnosis of polyarteritis nodosa.

Wegener was an otolaryngologist; in recent years, otolaryngologists have quite often recognized the condition he described. Blatt et al[9] found 124 cases. Again, the terminology is confusing, being used synonomously with "lethal midline granuloma." Wegener said that this granulomatosis about which he was writing was not the same thing as lethal midline granuloma. A Johns Hopkins Hospital autopsy report[10] indicated that no vasculitis was found in a patient who died with so-called lethal midline granuloma. Other cases have been reported,[11] however, with lesions that were called lethal midline granulomas, autopsy revealing widespread vasculitis. In most writing of recent years, the most characteristic feature of Wegener's granulomatosis is a granulomatous vasculitis of unknown etiology; hypersensitivity has been postulated, but concrete proof is lacking.

The autopsy of the case in protocol revealed an emaciated, jaundiced person with healing skin lesions on abdomen and trunk, and severe generalized edema. There were 2,500 cc. of amber fluid in the abdomen, 500 cc. in each pleural cavity, and 150 cc. in the pericardial cavity. The right lung revealed the thickened pleura and the large cavity lined with gray, shaggy material (Fig. 5). It was traversed by the remnants to bronchi and vessels. The cavity measured 8.0 x 6.0 x 5.0 cm.; another smaller cavity (2.0 cm.) was in the upper part of the lower lobe, and corresponded to the lesion seen on x-ray of the chest. Scattered elsewhere in the right lung were small (0.5-1.0 cm.) soft, gray nodules. The left lung was grossly normal.

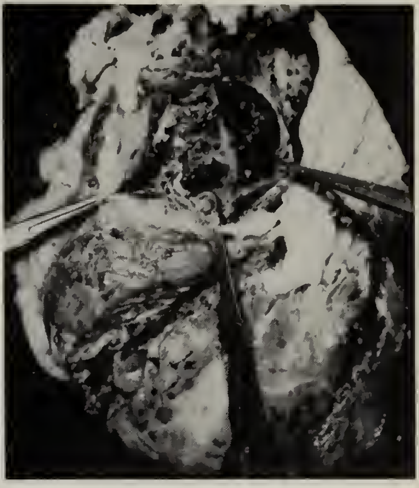
Fig. 5. Right upper lobe, showing marked pleural reaction and opened abscess cavity.

The wall of the cavity (Fig. 6) showed necrosis of the center. The margin consisted of connective tissue with lymphocytes, histiocytes, and areas resembling epitheloid cells. Giant cells were infrequent. Elastic tissue stains revealed that some of the granulomas appeared to be centered about arteries and veins, as indicated by remnants of elastic tissue in the necrotic areas. It was a bilateral disease, similar lesions being present microscopically in the left lung.

The spleen weighed 420 gm. and was soft and yellow. Only a few small areas of intact parenchyma remained (Fig. 7). This massive necrosis of the spleen is the result of vasculitis with thrombosis of arteries. An elastic tissue stain of a splenic artery shows destruction of the internal elastic lamina and most of the wall, with replacement by granulation tissue (Fig. 8).

The heart weighed 270 gm., was dilated, and had small areas of scarring in the myocardium. The small branches of the coronary arteries had destructive lesions with thrombi similar to those in the spleen. The scarring, some of it fairly recent, is thought to be due to the vasculitis.

There were no gross lesions in the upper respiratory tract, but microscopically, several vessels in the wall of the trachea contained old lesions (Fig. 9).

The liver was large and bile-stained. There was severe bile stasis, with plugs of bile in portal areas. There was mild inflammatory reaction, but the liver cells were not altered except for mild fatty change. I do not know what is causing this liver damage. Tetracycline typically produces necrosis. I can only suggest that it might be related to the INH therapy. Popper[12] has cited this drug as possibly causing intrahepatic cholestasis.

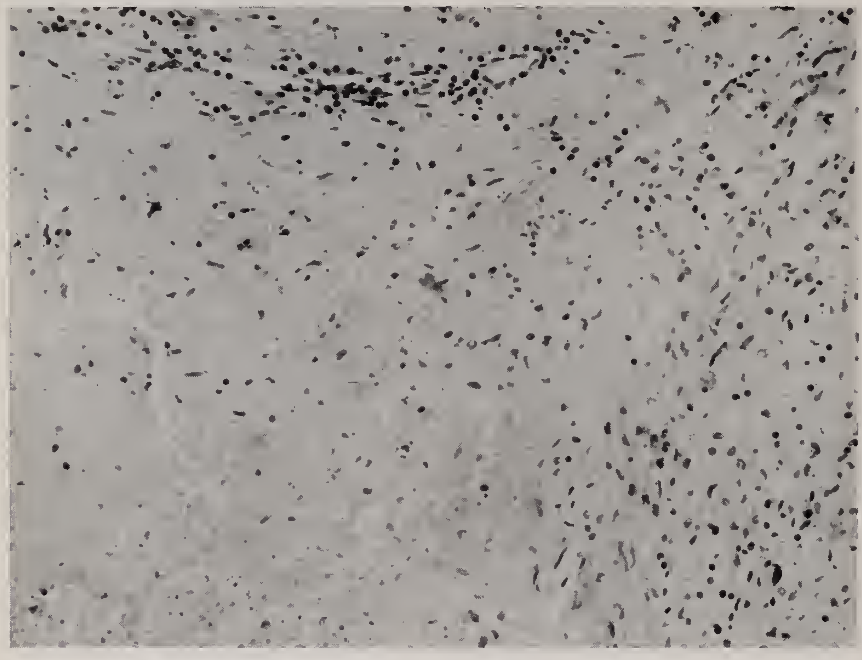

Fig. 6. Wall of abscess cavity, showing necrosis (lower left), and surrounding granulomatous reaction (right). H&E x120.

The kidneys were bile-stained also, but there was no evidence of glomerulonephritis or vasculitis. Because of the absence of these lesions, I believe this case should not be diagnosed Wegener's disease.

There were alterations in muscle, with mild vasculitis. The psoas muscle showed sarcolemmal proliferation, acute and chronic inflammation, and some areas of scarring.

The acid-fast organisms seen in the lung biopsy antemortem may have been saprophytes, or possibly contaminants. There was no evidence of tuberculosis in cultures or tissue sections taken at autopsy.

There was a small ulcer in the rectum, to account for the terminal bleeding, but no evidence of vasculitis in sections of the ulcer.

Anatomical Diagnoses

1. Vasculitis, healed, involving lungs, spleen, heart, and skeletal muscle.
2. Massive cavitation of right lung, secondary to vasculitis.
3. Erythema multiforme, healed.
4. Cholestatic hepatitis, probably drug-induced.

Dr. Robin: Dr. Myers, would you like to comment on Wegener's granulomatosis, or perhaps one-third of Wegener's?

Dr. Myers: I don't think one can argue that this is not an allergic vasculitis of some sort. Once infection and ordinary neoplasia are ruled out, the pathologist is down to one of two diagnoses—and I just "picked the wrong horse." It is obvious why I did, and I think we should remember this. Dr. Fennell has just emphasized that this case carries only one-third of the classical manifestations of Wegener's granulomatosis. This disease can occur in the lung in a fairly isolated form, although Dr. Fennell did demonstrate good lesions in the spleen and to some degree in skeletal muscle and heart, too. Another point is that in reviewing the literature on Wegener's granulomatosis, I found no case with a cavity approaching this in size. The cavities in Wegener's granulomatosis are classically small. Thus we've learned that these lesions can be much more massive than is generally recognized.

Wallace N. Jensen, M.D.: Do steroids play a significant role in the treatment of Wegener's granulomatosis?

Dr. Myers: Yes, I believe they do—to the same degree as would be true in many chronic inflammatory processes. Steroids can relieve symptoms and possibly even prolong life, but they are not curative; this is a relentless, progressive disease.

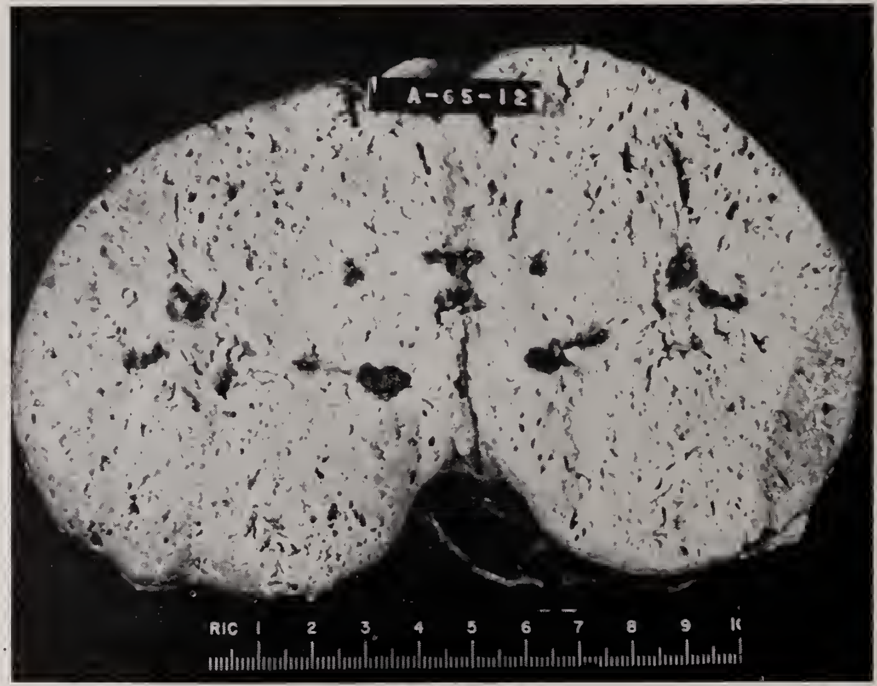

Fig. 7. Massive necrosis of the spleen, with only a few small islands (dark areas) of intact parenchyma remaining.

Dr. Robin: Dr. Fennell, I take it you have great difficulty dating the age of these lesions. Would you consider an alternate hypothesis, that this did start out as ordinary tuberculosis in an unusually drug-sensitive patient, and that the lesions resulted from a vasculitis secondary to drug therapy?

Dr. Fennell: It would be impossible to say that at one time there were no acid-fast organisms growing in this cavity. But I don't believe we have any evidence supporting this concept.

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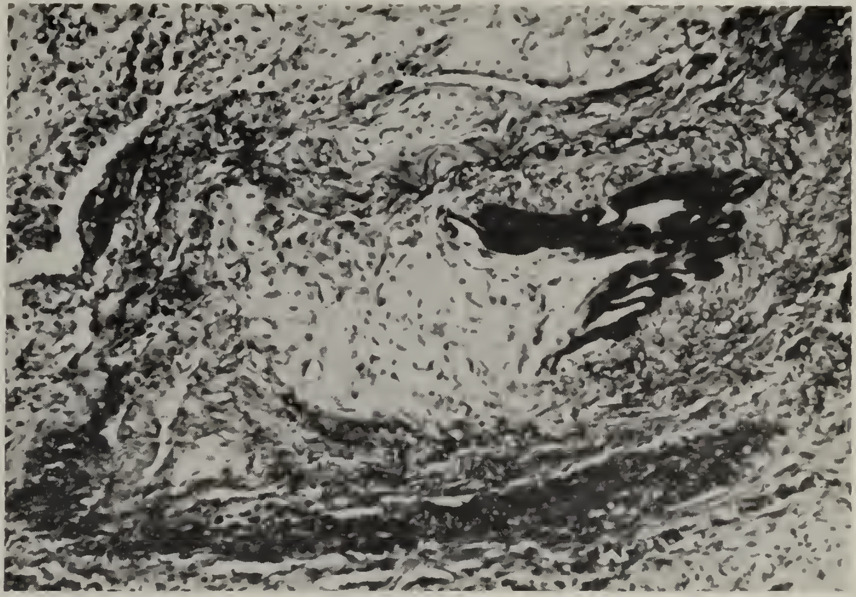

Fig. 8. Medium-sized splenic artery, showing replacement of most of wall by granulation tissue. Convoluted black area is remnant of internal elastic membrane. Woerhoff-Van Gresson x180.

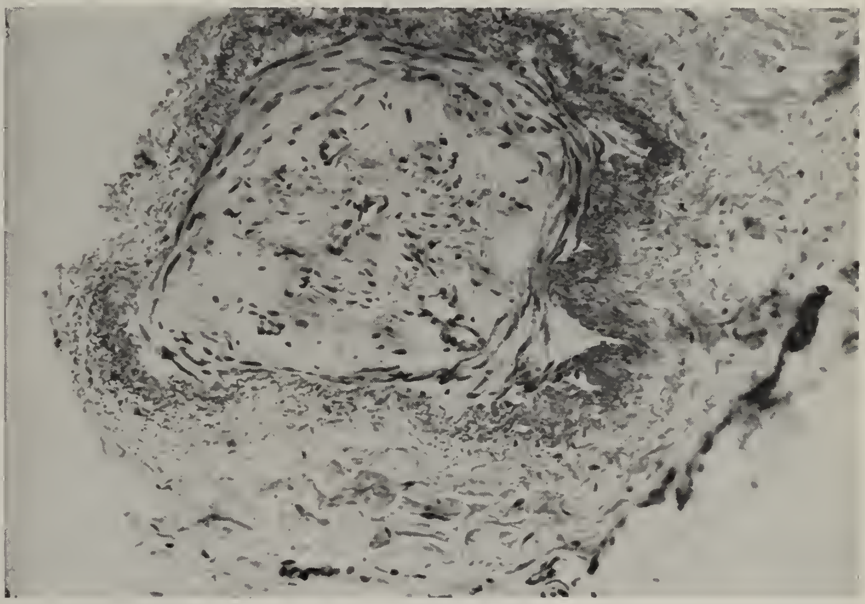

Fig. 9. A small vessel in the tracheal wall, showing destruction and recanalization. H&E x100.

The art of medicine . . . is thus exercised: one physician is confined to the study and management of one disease; there are of course a great number who practice this art; some attend to the disorders of the eyes, others to those of the head, some take care of the teeth, others are conversant with all diseases of the bowels; whilst many attend to the cure of maladies which are less conspicuous.

Herodotus (484-424 B.C.), reporting medical practices
in the Egypt of his era, *Book I, Clio.*, Chapter 166

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Pulmonary Emphysema and the Heart

Part I

What is pulmonary emphysema?

No definition of pulmonary emphysema will satisfy the physiologist, the pathologist, and the clinician. Clinically, it is a manifestation of pulmonary insufficiency. Emphysema is characterized by an abnormal enlargement of the air spaces, more or less extensive alveolar destruction, collapse of the smaller pulmonary blood vessels, obstruction of the airways, destruction of the elastic tissues of the lung, flattening of the diaphragm, distention of the thoracic cage, and decreased ventilatory function.

What is its etiology?

Often, the etiology is not definite. The condition most likely results from one or more of a variety of causes. Many are secondary to chronic pulmonary infections (tracheobronchial), such as tuberculosis, pneumonoconiosis, chronic bronchitis, or the chronic irritation caused by cigarette smoke. Other environmental pollutants may also possibly play a role.

Is there a typical pathologic picture in pulmonary emphysema?

No. It may appear as (1) centrilobular emphysema, with the central portions of the secondary lobuli destroyed; (2) diffuse emphysema, with generalized destruction of the alveolar walls and sacs throughout the primary lobule; and (3) bullae, representing localized areas in which the destroyed tissue is replaced by dilated air sacs. There is often a disparity between the extent of the obstruction noted at autopsy and the clinical manifestations of obstructive disease. It is important to remember that airway obstruction may result from any combination of these factors: loss of tissue elasticity, inflammatory changes within the airways, and intraluminal secretions.

What are the clinical features?

The gradual, insidious progress of the disease often delays recognition. The air sacs and ducts dilate, the alveolar walls rupture, and the alveoli join, producing microscopic and lateral macroscopic blebs. By the time unmistakable symptoms appear, this destruction is far advanced and irreversible. We must recognize emphysema at an earlier stage when the pathologic process can be slowed down. This can be done only if the clinician keeps in mind the early symptoms and carries out the necessary tests. Clinically, we find slowly progressive shortness of breath, often accompanied by cough and mucoid expectoration. There are associated weakness, wheezing, easy fatigue, and chest tightness. Acute attacks are often called "asthma," but actually they are the result of mucoid obstruction of the bronchi, with bronchospasm. These attacks end abruptly, after the patient coughs up the retained mucus.

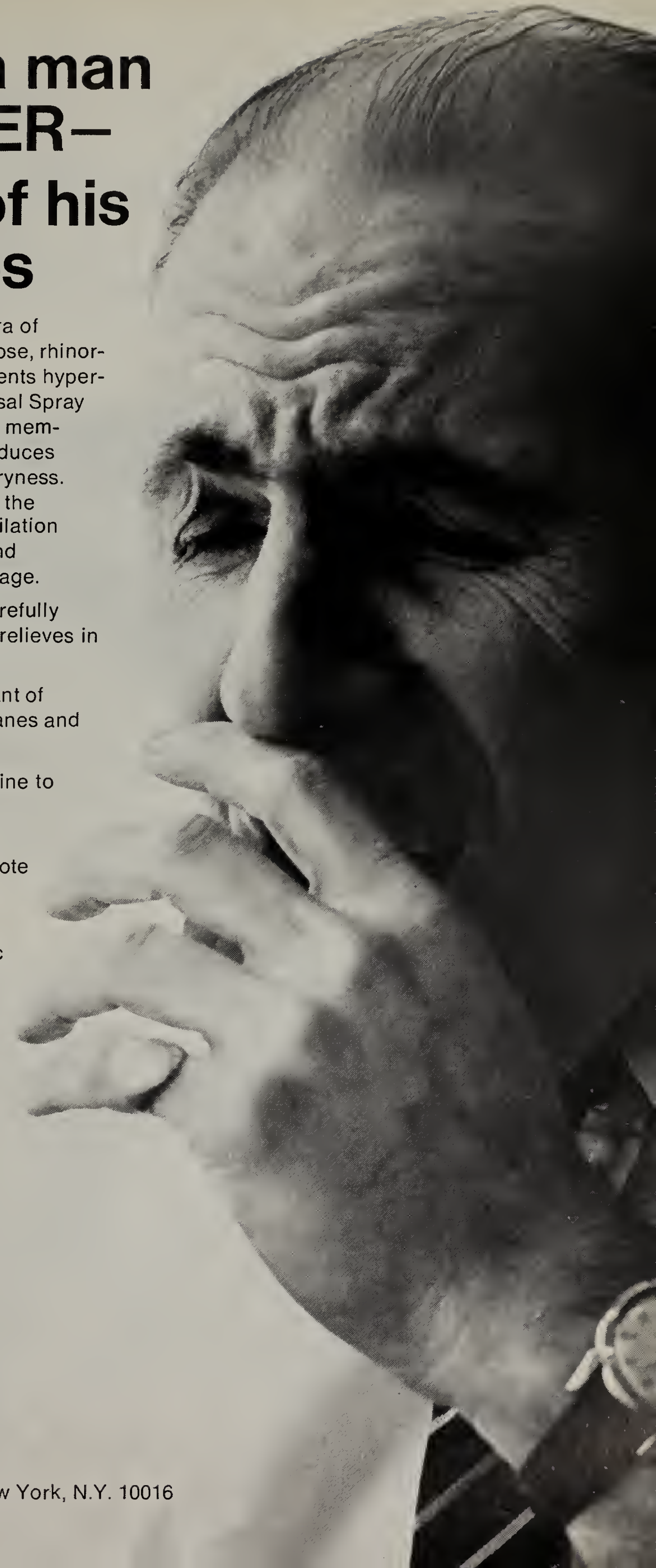
What are the early clinical characteristics of presumptive emphysema?

When a patient with emphysema is first examined, he already has some degree of lung damage, usually associated with subacute or chronic pulmonary or cardiovascular disease. The early signs most often encountered are (1) chronic cough, especially with excessive expectoration; (2) habitual inhaling of tobacco smoke, especially from cigarettes; (3) recurrent deep respiratory infections; (4) unaccountable dyspnea on exertion; (5) "intrinsic" or chronic "asthma" and (6) family history of emphysema, bronchitis, or asthma. Unfortunately, neither a physical examination nor roentgen plates may be helpful in early involvement. The diagnosis generally depends on ventilatory function studies.

How do pulmonary function studies help?

One needs to know how much of the obstruction is the result of irreversible changes in the terminal bronchioli as well as in the alveoli. A simple apparatus such as the Jones Pulmonor, which measures both total and timed vital capacity and other parameters, is useful. To determine the diminution of respiratory function and the degree of obstruction, compare with known standards the patient's total vital capacity and the percentages of total air expelled in one, two, or three seconds. Respect both measurements after the patient has inhaled an aerosol solution of a bronchodilator to relieve spasm, and to allow coughing to clear the larger bronchi of sputum. The difference between the two sets of measurements roughly indicates the degree of obstruction caused by disease of the larger bronchi, and furnishes some idea of the possibility of improvement. There are other extensive pulmonary function tests, but when they are necessary, they are best performed by a specialist in this field. The simple Pulmonor is an adequate tool for the average clinician.

• William G. Leaman, Jr., M.D. questions Harry Shubin, M.D., Medical director, Broad Street Hospital and Medical Center, Philadelphia, Pennsylvania. Dr. Leaman, Fellow, Council on Clinical Cardiology of the American Heart Association, edited this brief for the Council on Scientific Advancement, in cooperation with the Pennsylvania Heart Association.



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Placenta Previa Increta

An instance of an extremely rare concomitant of pregnancy is reported and explained by two investigators at Western Pennsylvania Hospital.

DRS. JOEL F. BOWER and
JOSEPH LOUGHREY

Placenta previa is not an unusual complication of pregnancy, occurring approximately once in every 250 deliveries;[20] placenta previa accreta, however, is an extremely rare condition, only 94 cases having been recorded. The following case which recently occurred at The Western Pennsylvania Hospital clearly typifies this unusual syndrome.

Case Report

A thirty-one-year-old married Caucasian female, gravida 5, Para 2, abortus 2, whose last menstrual period was April 1, 1965, was admitted to The Western Pennsylvania Hospital on September 10, 1965, at 21 weeks gestation, complaining of vaginal bleeding and mild uterine cramps. The pregnancy has been complicated by intermittent, painless vaginal spotting, beginning July 20. On admission, her vital signs were stable, and fetal heart tones were normal. Hemoglobin was 11.0 gm. serology was nonreactive, and blood type was A, Rh positive.

In February and June of 1958, D & C's had been performed for an incomplete abortion and for dysfunctional uterine bleeding, respectively. In August, 1960, at another institution, she delivered a 5 lb., 7 oz. infant by low cervical Caesarean section for suspected cephalopelvic disproportion. The postoperative course was complicated by a wound infection. In November, 1961, the patient underwent a repeat elective low cervical section with delivery of a 5 lb., 8 oz. infant. A third curettage was performed in May, 1963, for an incomplete abortion.

During the first 24 hours of the present hospitalization, there was a gradual decrease in the amount of vaginal bleeding. During the second 24 hours there was an unexplained transitory elevation of her temperature to 103°; it subsided spontaneously, however, without specific therapy. On the third hospital day there was a sudden, painless gush of approximately 500 cc. of blood from the vagina. At this time fetal heart tones were no longer audible, and although her blood pressure and pulse remained stable, blood replacement was initiated. Active painless bleeding continued, and with a tentative diagnosis of placenta previa, a classical Caesarean section was performed with delivery of a stillborn female infant weighing 1 lb., 9 oz.

At operation the internal cervical os was completely covered with placenta. When at attempt was made to remove it, no plane of cleavage could be found between placenta and myometrium. Further attempts at removal provoked profuse hemorrhage. A diagnosis of placenta previa accreta was made and a total abdominal hysterectomy performed. The patient was hypotensive during the entire procedure and a total of 4,000 cc. of blood was required to re-establish and maintain normal blood volume and pressure during the operation. Because of extensive adhesions from the previous Caesarean sections, the bladder was inadvertently entered and repaired. The patient's postoperative course was complicated by an ascending superficial thrombophlebitis in the right leg, from the malleolar cutdown site. The indwelling catheter was removed on the tenth postoperative day and the patient was discharged two days later.

Pathology

Gross examination of the uterus disclosed a mass of yellow necrotic placental tissue just above the endocervix. Multiple sections of the wall of the cervical segment revealed placental tissue that appeared to be growing into the wall. Microscopic examination of this area confirmed the presence of placental tissue in the muscular wall and chorionic villi within 2 cm. of the cervical mucosa. The final histologic diagnosis was "focal placenta previa increta" (Figs. 1, 2).

Discussion

Placenta previa accreta, according to Hertig, can be defined as the pathologic adherence of the placenta to the uterus when the placenta is situated entirely or partly over the internal os.[10] The most commonly used classification of placenta accreta (Aaberg and Reid) is dependent on the depth of placental invasion into the uterine wall and the amount of lateral placental involvement.[1] These authors classify depth of invasion as follows: (1) accreta: chorionic villi and uterine muscle are in apposition; (2) increta: invasion of villi into musculature; (3) percreta: invasion of villi through the muscle to the serosal surface of the uterus. Lateral involvement can be either (1) total: all cotyledons are adherent; (2) partial: one or more cotyledons are adherent; or (3) focal: only part of a cotyledon is adherent.

The true incidence of placenta previa accreta is impossible to estimate because of the relative paucity of cases and the lack of agreement involving diagnostic criteria. Although estimates run from 2,000 to 1/14,000 deliveries, placenta previa accreta appears to be encountered much less frequently.[6]

The basic pathologic defect in placenta accreta appears to be a poor decidual reaction which can occur in the lower uterine segment, allowing the

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villi to come into direct contact with the uterine muscle or to invade it. The concensus is that Rohr's stria and Nitabusch's stria are fused or absent;[10] Nillar demonstrated, however, that this layer is not always absent. He concluded that "the only constant feature in placenta accreta is complete or almost complete absence of the decidua."[17]

The majority of reported cases of placenta previa accreta have had intrauterine trauma such as curretage, infection, manual removal of the placenta, or Caesarean section. Although it is easy to conclude that previous intrauterine trauma interferes with subsequent development of the decidual layer, Millar feels that the poor decidual response is a true hormonal defect.[17] This case would add support to the thesis of previous intrauterine trauma as the initiating factor, since this patient had repeated uterine surgical procedures (two Caesarean sections and three D & C's).

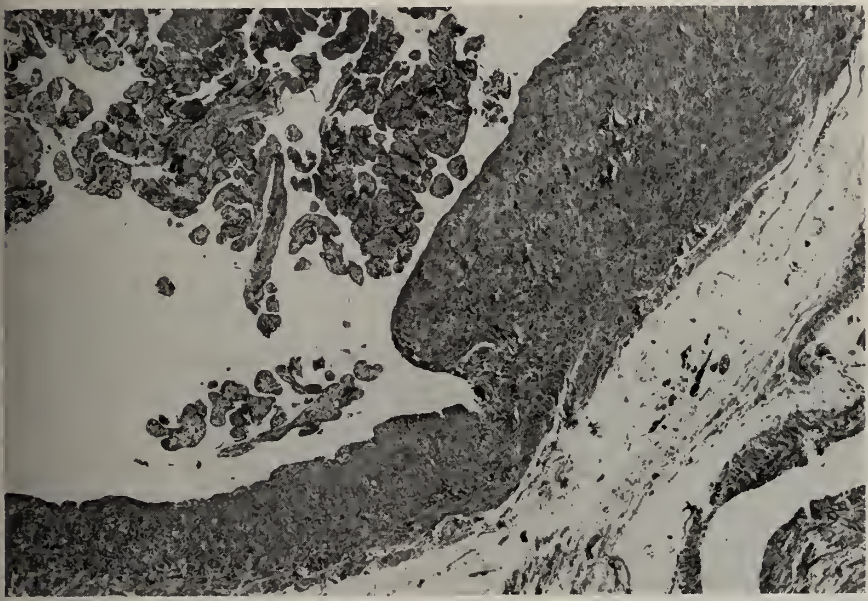
Fig. 1. Relationship of chorionic villi to myometrium of lower segment. Note absence of decidua and Rohr's and Nitabusch's striae.

Placenta previa accreta is diagnosed when attempted manual removal of the placenta provokes profuse hemorrhage, and when no plane of cleavage can be found between the placenta and the uterus. The mechanisms which provoke hemorrhage, according to Kistner, are (1) opening of dilated myometrial sinusoids by the manual removal of the placental coverings; (2) dimunition in the amount of decidua with insufficient basal thrombosis of vessels at the placental site; and (3) poor contractility of the lower segment.[13] Koren, as well as Cherry, reported a fourth cause—hypofibrinogenemia.[14, 4]

Treatment of choice in placenta previa accreta is total abdominal hysterectomy.[6] This procedure obviates bleeding from the lower uterine segment which may be left behind after a subtotal hysterectomy.

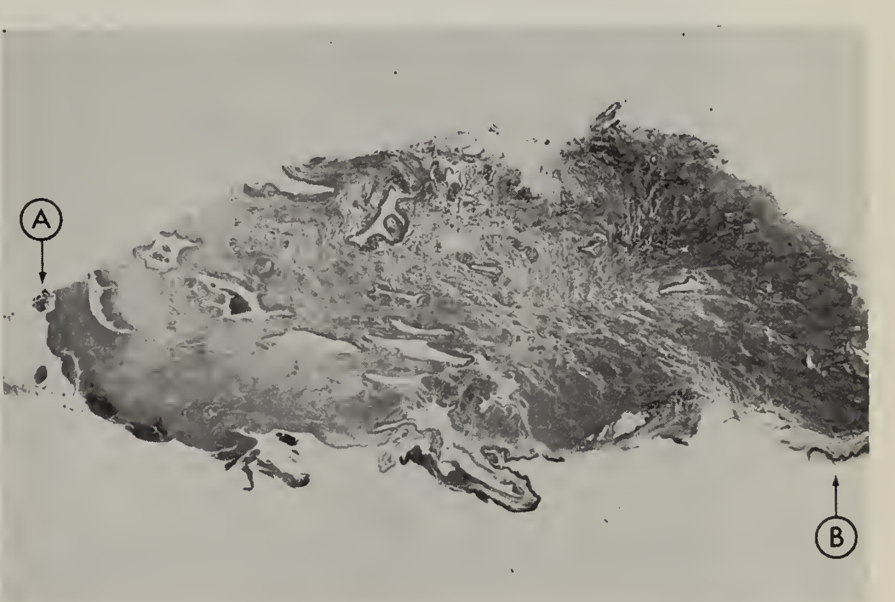

Fig. 2. Relationship of chorionic villi (a) to cervical mucosa (b).

In a retrospective review of the literature, Koren et al have summarized 62 cases of placenta previa accreta.[14] Of these, 42 were treated by total or subtotal hysterectomy with a mortality of 10 percent. In the 20 cases in which uterine preservation was attempted, there was a 60 percent mortality. DiMasi has reported ten cases treated by total abdominal hysterectomy, with only one death, and this from sepsis.[6] In the remaining 22 reported cases of placenta previa accreta treated by total abdominal hysterectomy, there were no deaths.[8, 9, 16, 19, 22, 24, 26]

Shannon has reported a case in which the uterus has been conserved by removing the placenta by sharp dissection.[23] DiGulio stated that if the placenta is left alone when there is no active bleeding, the placenta will pass spontaneously in one to three weeks.[5] Goldman believes that conservative expectant therapy may have a place when there is absence of active bleeding, and when future pregnancy is desired. Despite his plea for conversatism, he states, "Hysterectomy remains the safest method and should be the treatment of choice."[8] If one is to attempt to pursue a conservative course for this syndrome, it is mandatory to be constantly prepared for immediate operative intervention and massive blood replacement.

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The M.D. and the V.M.D.

Medicine today is a blend of interrelated areas, including veterinary practice, an increasingly technical and science-oriented discipline

MARK W. ALLAM, V.M.D.
Philadelphia, Pennsylvania

Among the medical sciences, none has more diverse obligations than veterinary medicine. These range from a direct concern for the general welfare of many animal species, to participation in programs of space medicine, to concern for the control and prevention of zoonotic diseases affecting millions of human beings. The agricultural economy and the nutritive plane of this nation and the world depend in a large measure upon the research, service, and educational activities of the veterinary profession.

Science has not appreciably lessened man's dependence upon the food animal. The geography of hunger in a rapidly expanding world population is still largely determined by the numbers, health, and efficiency of domestic animals. The changing pattern of agriculture, with concentrations of large numbers of farm animals in smaller and smaller areas, poses a serious challenge to the veterinarian, especially in terms of preventive medicine and control of the zoonoses. The increasing numbers of pet animals in urban areas pose similar problems.

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In fulfilling these obligations, the veterinary profession is greatly indebted to the entire body of medical knowledge. While the clinical picture and the pathologic physiology of disease in different species may vary, the underlying principles of disease in animals are basically the same as those in man. In fact, while veterinary medicine has broad responsibilities to agriculture, its scientific growth and development depend in a large measure upon its relationship with and proximity to the medical and biological sciences.

Today, most schools of veterinary medicine have broad research programs in the basic sciences. Since World War II, there has been a sharp increase in the number of veterinarians obtaining advanced degrees in basic science disciplines; these individuals are helping to fill serious gaps in educational and research programs. The great challenge which now faces veterinary medicine is an upgrading of clinical research and teaching to meet the increasingly complex demands which will be made on the practicing veterinarian of the future.

Educational Program

Before discussing some of the details and problems of veterinary practice it seems appropriate to dwell briefly upon the educational background of the veterinarian.

In 1807, Benjamin Rush, a member of the medical faculty of the University of Pennsylvania, opened his course of lectures with a notable address on *The Duties and Advantages of Studying the Disease of Domestic Animals.* Physicians, he said, should interest themselves in the subject not only from consideration of kindness to dumb creatures and the practical benefit to farmers, but also because a study of animal diseases throws light on those of man.

At that time, this was a most unorthodox suggestion, for veterinary medicine—then the crude art of farmers and farriers—was utterly foreign to the classical medical curriculum. However, this suggestion, made over 150 years ago, expresses a concept many regard today as an important cornerstone in the future development of medical science—that of "One Medicine."

Perhaps nowhere else in the world has this idea been pursued more vigorously and enthusiastically than at the University of Pennsylvania; it is this "One Medicine" philosophy which has guided the School of Veterinary Medicine in the development of its educational, research, and clinical programs. At the University of Pennsylvania, the veterinary school is an integral part of the medical and biological science complex, and it is within this framework that its educational program has evolved and will continue to evolve.

It is interesting to note that the first two deans of the School of Veterinary Medicine were physicians. Dr. Rush Shippin Huidekoper, a medical graduate of the University of Pennsylvania in 1877, prepared himself for the position of dean of veterinary medicine (1884) through special studies at academic centers of veterinary medicine in Austria, France, and Germany. In 1889, Dr. John Marshall followed Huidekoper as dean, a post he held for six years. During three of these years, he also was dean of the medical school.

Modern veterinary medical education is the product of the same kinds of "growing pains" which plagued medical education in the first decade of this century—"diploma mills," a rigid, didactic curriculum, and a philosophy which cultivated the art rather than the science of medicine. Veterinary medical educators still have many serious problems, but in the last decade notable progress has been made; most important, there is today a spirit of introspection and a lively interest in solving fundamental problems.

An indication of progress made is the quality of preveterinary education. All veterinary schools within the United States require a minimum of two years of preveterinary college education. At the University of Pennsylvania, 95 percent of applicants have completed three or more years of college. Perhaps of greater importance is the fact that veterinary school applicants prepare themselves through courses which are in every way academically equivalent to required courses for premedical students. At the University of Pennsylvania we do not neglect the view that our students should have some appreciation of animal husbandry, but the principal prerequisite is a sound foundation in the sciences and humanities.

In general, the four-year curriculum in veterinary medical education is similar to that of medicine. The early years are spent in study of the basic sciences—anatomy, biochemistry, and physiology—followed by a gradual transition to the clinical sciences, through such courses as microbiology, pathology, and parasitology. In recent years, a number of new courses such as biostatistics, epidemiology, and radiobiology have been introduced in the veterinary medical curriculum; during the clinical years, special training in such areas as radiology, ophthalmology, neurology, cardiology, dermatology, orthopedic surgery, and anesthesia is a standard part of the educational program. Thus, the same trends which have dominated education in medicine are now apparent in veterinary medicine.

More important than alterations in the curriculum is the educational philosophy which now prevails at several schools of veterinary medicine. As in medical schools, many veterinary educators are now placing their emphasis on understanding rather than on the mere presentation of masses of facts. The importance of high-quality clinical research to the development of good clinical departments is generally recognized and accepted. In short, veterinary educators are striving to produce veterinary medical scientists.

Fig. 1. Animal patient's fracture benefits from application of up-to-the-minute techniques and scientific knowledge.

Although there is no formal program of postgraduate internship in veterinary medicine, most academic institutions and several large private veterinary hospitals offer internships for which there is a lively competition among new graduates. For example, ten recent veterinary graduates are now serving a one-year internship at the University of Pennsylvania. Most graduates who plan to enter private practice serve an academic internship or spend a year or more with an experienced practitioner-preceptor.

Past, Present, Future

The first school of veterinary medicine associated with an academic institution in the United States was established in 1879, at Iowa State University, the second in 1884, at the University of Pennsylvania. During that era, the United States was primarily an agricultural nation and nearly all graduates of the early schools engaged in a farm animal practice. While these early practitioners contributed significantly to the welfare of the livestock industry, their methods, as in human medicine at that time, were relatively crude and empirical. Fortunately, large concentrations or interstate shipments of animals were uncommon, so that serious outbreaks of disease were less devastating than they might be today.

During these early years, the profession was solidly wedded to agriculture, and nearly all of its energies were expended in the "practical" control and treatment of disease. Teachers, researchers, and practitioners had little inclination to seek a more basic understanding of the disease process. Available information on physiological mechanisms in the various species was not only scanty but often grossly misleading.

The research conducted during this period was purely descriptive; masses of facts and figures, often of doubtful validity, were accumulated, but there was little or no attempt to correlate information and apply it in useful ways to disease problems. During the early years, and up into the 1940's, specialization in veterinary practice was based solely upon species. Thus, some individuals confined their practices entirely to cattle, while others concentrated on horses or swine. As urban areas grew and pet animals became more numerous, the number of graduates entering pet-animal practice sharply increased. There were very few individuals who developed anything approaching a genuine medical or surgical specialty. A principal reason for this situation was the fact that none of the academic institutions offered training in "discipline specialties."

By 1940, there was a small group of veterinary educators who were beginning to appreciate the need for guiding veterinary medicine into the mainstream of medical and biological science. There was a growing awareness that veterinary medicine could no longer meet its responsibilities through the "animal husbandry" approach, and that it must develop a greater orientation to biological and medical areas.

Recognition of the importance of a fuller partnership between medicine and veterinary medicine was not confined to veterinarians. Some leaders in medicine and biology were awakening to the realization that veterinary medicine was in a position to make unique contributions to medical science, and that all segments of the medical and biological sciences would benefit from parallel, integrated development.

Following World War II, these concepts slowly began to bear fruit. Gradually the caliber of teaching began to improve, particularly in the basic sciences, where individuals with advanced training could be recruited. With overall improvement in staff, physical plant, and research opportunities, veterinary schools began to attract scientists from other areas. Basic research began to influence the entire educational program. In this improved atmosphere the obvious began to happen, and even those graduates who entered private practice were stimulated to develop a more science-oriented attitude.

Experience in medicine has indicated that nothing compares with a research atmosphere for developing in students a scientific and critical capacity. If the student finds an atmosphere of intellectual curiosity in the clinic, he will be more likely to acquire the intellectual discipline which will enable him to approach clinical problems in a logical, scientific manner. Until recently this atmosphere was largely absent in the clinical departments of schools of veterinary medicine. Clinical staffs were made up mainly of individuals whose sole aims were to provide service, and to teach; the importance of creating new knowledge was scarcely recognized.

Fig. 2. Veterinarian putting into practice basic principles of treating the individual patient and relating its particular problem to the herd and the community.

A major change which occurred at this time was the development of opportunities for advanced training in clinical specialties; the first school to provide such programs was the University of Pennsylvania. This resulted in an upgrading of both clinical research and clinical teaching. Thus, today's practitioner of veterinary medicine has an educational background which enables him to become a full partner in his medical community. Whether he is engaged in farm animal practice, pet animal practice, or teaching and research, he recognizes that he not only has much to gain from close association with physicians, dentists, and others in medical science, but that he has much to contribute, as well.

Today, over two-thirds of the 24, 000 veterinarians in the United States are engaged in private practice. Of these, approximately 8,500 are involved in farm animal practice. The 18 schools of veterinary medicine located in 17 states graduate nearly 900 veterinarians annually. While the opportunities in research, teaching, industry, government, and military service are excellent, the majority of graduates still enter some phase of private practice.

Two Areas

Veterinary practice may be divided into two broad categories: farm animal practice and pet animal practice. Actually, the greatest number of practitioners engage in both of these simultaneously (mixed practice).

Through effective control and treatment of disease, the farm animal practitioner contributes directly to the productivity of the $50 billion livestock industry and to the nutritional well-being of the nation. The practitioner's problems vary with the nature of his practice; for example, the treatment of disease in dairy cattle is usually approached on an individual animal basis, whereas in swine the practitioner is more likely to be concerned with the herd.

With the demands of increased milk production, metabolic diseases have become a major concern of dairy cattle practitioners. In swine practice, partly due to methods of animal husbandry in which great numbers of animals are raised in close quarters, the control and treatment of infectious disease is always an important problem. Surgical correction of disease is difficult in farm animal practice, but many practitioners manage to perform excellent surgery under the most adverse conditions. Characteristic of some of the problems faced in field practice is the postsurgical management of the fluid and electrolyte needs of an 800-pound dairy cow. This animal has a circulating blood volume approaching 30 liters, so that in severe dehydration the veterinarian may be confronted with the problem of supplying 10 to 20 liters of fluid daily!

Another specialized area of veterinary medicine is equine practice. Although exact figures are not available, the horse population of the United States appears to be greater than at any time in the nation's history. Except for certain sections of the country, the farm horse has more or less disappeared from the scene, and most of our horse population consists of animals used for sport or pleasure—riding horses, race horses, hunting horses, and show horses. Some veterinarians restrict their practice to one type of horse. For example, there are those who practice almost entirely at race tracks, where there are large concentrations of thoroughbred horses.

Equine practice poses many interesting problems. In race horses much attention centers on the causes and correction of conditions of lameness. The field of equine orthopedic surgery has made significant advances in recent years, and undoubtedly will continue to grow in importance. In very valuable horses, reproductive problems receive considerable attention, since the maintenance of good breeding lines is of vital concern to owners of such horses.

While much of the actual medical or surgical treatment of farm animals is undertaken by the practitioner in the field, there is a growing tendency on the part of veterinarians to refer the more complicated cases to large centers of veterinary medicine so that the cases may be studied in depth. The University of Pennsylvania has a rural center for clinical veterinary medicine and research—New Bolton Center, located near Kennett Square, Pennsylvania. It is equipped with the most modern surgical, roentgenographic, and laboratory equipment. All species of farm animals, and many horses, are referred here.

There are major differences between pet animal and farm animal practice. In the latter, the veterinarian is always confronted with certain practical problems which limit his approach to diagnosis and treatment—the size and economic value of the animal, the surroundings in which the veterinarian must work, and the availability of diagnostic facilities.

The pet animal practitioner usually has a larger variety of modern surgical and diagnostic equipment at his disposal and is better able to hospitalize his patients for careful study. In general, this type of practice is not unlike the practice of human medicine. Veterinarians practicing in urban areas are in frequent contact with physicians—a situation which can be mutually beneficial.

Like medicine, veterinary medicine is also confronted with the serious problem of providing better programs of continuing education for the practitioner. Most veterinary schools, therefore, provide short courses, seminars, and conferences on subjects of current importance.

In summary: veterinary medicine is moving forward vigorously in the mainstream of medical and biological science, and its opportunities, aspirations and problems are strikingly similar to those of its sister professions. The concept of "One Medicine" has never been closer to realization.

The M.D.'s Praise the V.M.D.'s

The American Medical Association is supporting legislation to provide federal aid for the construction of veterinary medical education facilities. The stand was taken in a letter to the Health Subcommittee of the House Commerce Committee. Said F. J. L. Blasingame, M.D., executive vice-president of the AMA: "The contributions made in the field of veterinary medicine, in its various aspects, redound to the benefit of all mankind."

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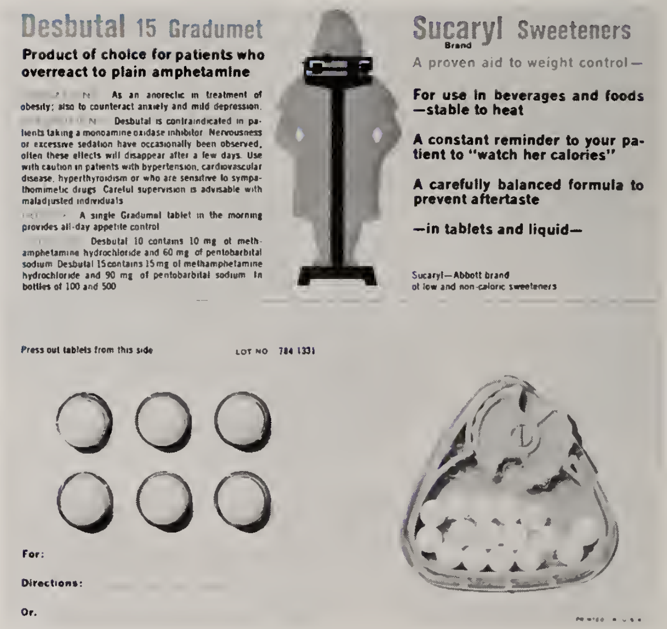

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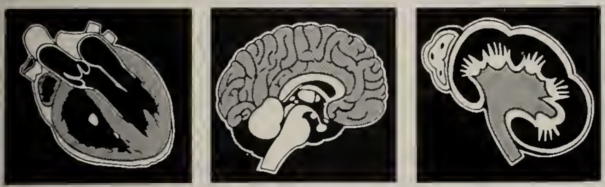

> "Hypertension is certainly a major factor in the genesis of coronary heart disease, and it is even more important when compounded with obesity."[4]
>
> "[Vascular deterioration] can be clearly seen in the kidney with a degree of damage that can be measured by renal function studies."[10]

". . . most evidence suggests that reduction of blood pressure, when it is too high, not only relieves the heart of excess work but reduces vascular damage."[1]

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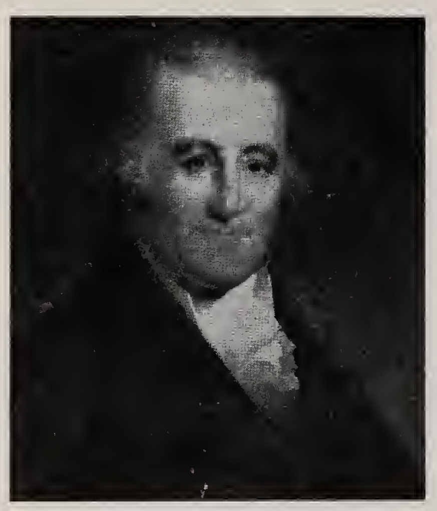


DR. WISTAR

Dr. Caspar Wistar, a leader of American medicine and a beacon of hospitality in the social and cultural world of Philadelphia, was born in the Quaker City to a family of moderate wealth; he was a grandson of another Caspar Wistar, a pioneer American glassmaker, whose products today bring impressive prices from collectors of antiques.

Young Wistar attended elite Penn Charter School, then took up medical studies in the office of Dr. John Redman. Later, while he was attending medical school at the College of Philadelphia, that institution split because of social and economic events resulting from the American Revolution, and Philadelphia found itself with two medical schools: one the private College of Philadelphia and the other the state-supported University of the State of Pennsylvania; (later the two schools reunited to form the University of Pennsylvania).

Wistar received his Bachelor of Medicine degree from the newer medical school in 1782, and the next year, following custom, he went abroad to complete his training. He spent a year at London's medical institutions, then proceeded to Edinburgh University, "the cynosure of American medicine," where he received his M.D. in 1786.

After making a grand tour of Europe, Wistar returned to Philadelphia in 1787, and two years later (before the days of specialization), he succeeded Dr. Benjamin Rush as professor of chemistry in the medical school of the College of Philadelphia. When the University of Pennsylvania was formed in 1792, he became the adjunct professor to pioneer American anatomist, Dr. William Shippen, who held the formidable and multiple chair of anatomy, surgery, and midwifery. At the elder physician's death, Wistar was elevated to a full professorship as the occupant of the slightly streamlined chair of anatomy and midwifery. When this still cumbersome chair was bisected in 1810, Wistar became professor of anatomy, a position he held for the rest of his life.

In 1811, he published his major treatise, *System of Anatomy,* which has the distinction of being the first American textbook on that subject. As a practical anatomist, his chief contribution was the elucidation of the correct anatomical relationship between the ethmoid and the sphenoid bones.

As a natural outgrowth of his teaching career, Wistar amassed a large anatomical collection, or "museum," which, after his death, his family donated to the University of Pennsylvania. Embellished, over the years, by Dr. William E. Horner and others who were Wistar's professional descendants, the aggregation was eventually incorporated into the Wistar Institute of Anatomy and Biology which in 1892 was founded and endowed by his grand-nephew, Dr. Isaac Jones Wistar.

Also among Caspar Wistar's medical credits were: an active private practice, membership on the staff of the Pennsylvania Hospital, and the founding of a society to promote vaccination.

Wistar married twice. His first wife was quiet and retiring, but his second, Elizabeth Mifflin, whom he married on May 15, 1798, belonged to a glittering social clan. She loved to entertain and to serve as a hostess, and the Wistar mansion at Fourth and Prune (De Lancey) Streets became a center of society.

Especially interesting from an historical perspective were a series of parties, initiated in 1798, which Elizabeth encouraged her husband to give for his friends from the American Philosophical Society, and for other scientifically-minded individuals.

The attaction of these Sunday evening gatherings was good talk—on medicine, on science, and on literature—and included, no doubt, some healthy gossip. At first, a few people at a time were invited, and soon a group came, out of habit. To use an old-fashioned phrase, Dr. Wistar was "at home" on Sunday evenings between October or November and March or April.

The refreshments the Wistars served their guests were simple—wine and cakes. In 1811, when the night of the parties was shifted to Saturdays, a more elaborate table was spread with the addition of "raisins and almonds, domestic fruits, and ice cream."

Even if the food was not extraordinary, the guests were distinguished. Among those who called were famed Philadelphia physicians such as Drs. Robert M. Patterson,

■ *Dr. Richman is chief of the Science, Industry, and Technology section of the William Penn Museum in Harrisburg. In cooperation with the State Society, he has directed a medical history exhibit project for the museum. His article on* Nathaniel Chapman, M.D. *appeared in* Pennsylvania Medicine *in March of this year, and one on* George Washington's Physicians *was published in June.*

Samuel Griffitts, Benjamin Smith Barton, Adam Kuhn, and Nathaniel Chapman. Banker Nicholas Biddle, explorer John Heckewelder, and Chief Justice of Pennsylvania William Tilghman attended, as did the Abbe Correa de Serra, Portuguese minister to the United States, and botanist Thomas Nuttall, who named the wine "Wistaria," for his host.

Until his death in 1818, Wistar's home provided a salon for Philadelphia's intelligentsia. The Quaker City, however, is not one to change habits easily, and just because the host had died was no reason to discontinue the parties. Accordingly, six of those who had enjoyed Dr. Wistar's soirees established the Wistar Party as an informal organization devoted to good companionship and to the physician's memory. Each of the founders agreed to give three parties a year during the season, a number which declined to one per member in subsequent years as the club's membership increased to its ultimate twenty-four.

Certain informal rules were laid down to govern the get-togethers: the group was to meet promptly at 8:00 P.M. on Saturday evenings; members of the Party, an unlimited number of distinguished visitors to Philadelphia, and up to twenty Philadelphians might be invited to each gathering; refreshments were to remain simple, although perhaps not as Spartan as in Wistar's time (a memorandum dated 1829, found in a notebook kept by John Vaughan, the society's self-appointed arbiter, recorded "no tea, coffee, cakes [or] wine, before supper—at supper may have beef, ham, turkey, or chickens, chicken salad, stewed oysters. No ice creams").

After an amicably unofficial existence of more than twenty years, the Wistar Party finally framed a constitution. The document provided for a chief officer or "dean," and prescribed the menu for the gatherings. The meal was to consist "of croquettes and oysters in one style (or of oysters in two styles without croquettes); one kind of salad; ices and fruits; two kinds of wines (sparkling wines excluded)." The constitution further held that new members should be elected unanimously, and that since all those in the Party also belonged to the American Philosophical Society, membership within the A.P.S. was to be a requirement for joining their group. Of the twenty-four members who signed the Wistar Party's constitution, ten were physicians.

On May 25, 1843, on the occasion of the one hundredth anniversary of the A.P.S., the Wistar Party gave its one great public gala, playing host to the venerable organization's entire membership and invited guests.

The Wistar Party had three great faults: it was too small, its members were elderly, and it could not readily assimilate younger members. When new members were added, they too were elderly. Slowly it died out.

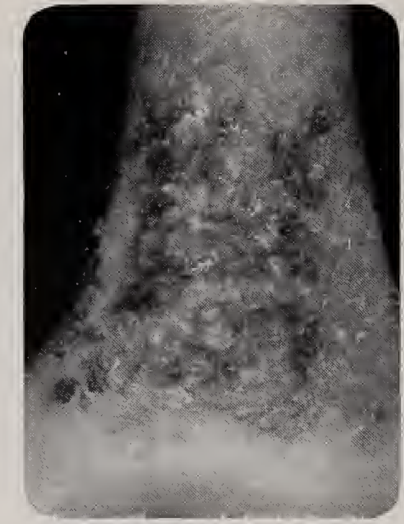
In 1861, because of the Civil War, meetings were suspended. When they were resumed two years later, only two members were able to attend. In 1866, the Wistar Party ended as informally as it had begun. An era had passed.

But then, how many individuals can continue to entertain their friends for even forty-eight years after their own death?

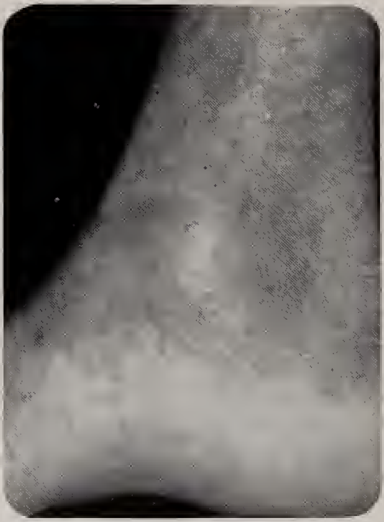
Dr. Wistar welcomes students to a Christmas party.

Artist: Jim Reid. Picture courtesy of Wyeth Laboratories, Inc.

Eczema of many years... controlled in two weeks



Before treatment



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An Editorial

Thank You, Jim

Nineteen centuries ago, Epictetus wrote, "Difficulties are things that show what men are." Never has this truth been more poignantly exemplified in the history of the American Medical Association than during the past year.

The organization and the medical profession as a whole have had many periods of stress and difficulty—the time of the AMA's founding, the age of Flexner and the reform of American medical schools, and the decades whose irregularities led to passage of the Pure Food and Drug Act and establishment of the Federal Drug Administration.

But there has never been an era like the present one. The vast turmoil of social **change** accelerates constantly, and shows no signs of decelerating. The physician, an integral part of today's world, is caught up in this *accelerando* of evolution.

Organization, too, is a key word; in medical practice, advance is synonymous with teamwork. The solitary achievements of Ephraim McDowell are today reflected in the work of cardiovascular teams and similar groups in our highly organized medical centers. The brilliant individual achievements of Pasteur and Koch have given way to extensive, concerted investigations by cooperating scientists and institutions.

No longer are results of research communicated by letter, or by a paper directed toward a small segment of society. Announcement of such results is made via several media, to many groups at various levels of interest and sophistication, and important findings are rapidly integrated with the work of other teams and other institutions and as rapidly put into technical and practical use.

These rapid changes in milieu are likely to make the physician a bit unsteady on his feet. He feels the pressure of the need to "keep up" in the science and art of medical practice; at the same time, he must study sociology, economics, politics, and related areas of expanding knowledge, in order to avoid sinking into social coma. Simultaneously with all this, he is running hard to satisfy his patients—who, being informed that he has more to offer, naturally expect more attention and more healing.

At such a time, the president of our American Medical Association must be a big man—one who can face the future with clear vision and with strength, and who can stand firm when the footing is irregular and shifting.

JAMES Z. APPEL, M.D.

We chose the right man for this job when, in the fall of 1964, we named Jim Appel of Lancaster president-elect. We had no doubts when he took office in June, 1965, and now that his term has ended, we feel nothing but gratitude and pride.

Jim's background was right; his education and training were excellent; in a representative American city where his father had preceded him as a physician, he engaged in private practice among people who knew him, his background, and his ability.

He was stimulated by his work in an outstanding liberal arts college; he had long education in politics, and his medical political career led him through offices in county, state, and national societies, bringing him to a position of medical statesmanship.

We elected a "man for all seasons."

Jim took command at a time of turmoil and defeat, when a law had just been imposed upon us which we abhor and fear. He became the leader of an association shaken by political defeat and divided as to how medicine could live with a law which it hated. Jim, himself, had worked hard to help try to defeat passage of that law.

Here was a challenge for a man. Jim's conduct as our leader and spokesman makes us proud to have worked for his election. He saw the law he had been given to cope with as the law of his country—one to be obeyed. But he saw, too, that the law could be improved and modified.

The skill, industry, and devotion which Jim Appel gave to this task demand the vote of thanks we are expressing here. Could any man have done a better job?

We know that patients, hospitals, and physicians must endure much before this law is operating smoothly and well. We know that modifications and adaptations of the law will be necessary. But in confidence we can help carry these changes forward along the lines Jim Appel established during his presidential year.

And following Jim's example, each physician can do his utmost, in his own sphere, to keep American medicine free and great.

MEDICAL SOCIETY NEWS

Six Receive PMS Full-Tuition Scholarships

■ For the first time in the six-year history of the medical scholarships program of the Educational Fund of the Educational and Scientific Trust, six prospective physicians have earned the awards (as compared with four in each of the previous years).

■ Trust Chairman **James Z. Appel, M.D.**, has called attention to the fact that this year's half-dozen brings the overall total of recipients to twenty-six, of whom six now hold medical degrees. The program, thus far, represents a total investment of more than $147,000 of PMS funds.

Sandra Elizabeth Briggs, 22, lives with her parents, Mr. and Mrs. D. Kenneth Briggs, near Washington, Pennsylvania. She is an alumna of Chartiers-Houston High School (Houston, Pennsylvania), and was graduated *cum laude* from Maryville College in Tennessee. The first girl to be awarded a PMS full-tuition scholarship, Miss Briggs is also the first person from her county to receive one. Several undergraduate awards, and many hours devoted to tutoring in algebra, helped finance her college education. She was active in a variety of campus organizations, and served as a reporter on the college newspaper. This fall she will enter the Temple University School of Medicine.

Alan Cohler, 22, the son of Mr. and Mrs. Jack G. Cohler, was graduated from Northeast High School, Philadelphia, and from Allegheny College, Meadville. His honorary memberships include Phi Beta Kappa, and during college years he participated in a number of widely-varying activities. He was awarded several scholarships, and the John Scott Craig Prize—given to the Junior Class man chosen by the faculty as "highest in general excellence." In addition, he was named "President's Scholar" and "Alden Scholar." In September he will matriculate at the University of Pennsylvania School of Medicine.

Jeffrey Morse Hoffman, 21, an alumnus of Central High School in his home town of Philadelphia, completed the premedical course at Franklin and Marshall College, Lancaster, in June. His latter three years at "F&M" were financially aided by Thomas Boyd Scholarships, and during all four years he was a member of the College Scholar Program. Among his organizational memberships is Pi Gamma Mu, national social science honor society. His parents are Mr. and Mrs. Louis Hoffman. He, too, will next month enter the University of Pennsylvania School of Medicine.

Harold Rosen, 22, was graduated from Philadelphia's Central High School, and from Temple University. At the latter institution he had a four-year Closed Scholarship. He also benefitted from a Philadelphia Mayor's Scholarship. Active in a number of university organizations, he was elected to Phi Eta Sigma (Freshman honor society), and participated in the Distinguished Juniors, English Honors, and Work-Study programs. He belonged to the Pre-Medical and Biology societies, and was an Orientation Leader. His widowed mother is Mrs. Regine Rosen. He has been accepted by the Temple University School of Medicine, and will enroll there in September.

Richard Lewis Malen, 22, was a classmate of Alan Cohler at Franklin and Marshall College, and, like Mr. Cohler, was a participant in the College Scholar Program. His preparatory school was Northeast High, in Philadelphia. College was partially financed by a Philadelphia Board of Education Scholarship, a Pennsylvania Merit Scholarship, and funds from the Franklin and Marshall College Aid Program. Mr. Malen took part in several campus activities, and was elected to membership in Pi Gamma Mu. His parents are Mr. and Mrs. Herman E. Malen. Next month he will enroll at the University of Pennsylvania School of Medicine.

Sigmund Arthur Weitzman, 21, is, like Mr. Rosen, an alumnus of Central High School, Philadelphia, and of Temple University. And, like the other five awardees, he qualified for scholarships during his undergraduate years. Elected to Phi Eta Sigma, he served as its treasurer. He also belonged to the Biology and Pre-Medical societies, and was a member of the Student Orientation Staff. His parents are Mr. and Mrs. Samuel Weitzman. He will be a classmate of Miss Briggs and Mr. Rosen at the Temple University School of Medicine.

■ **All six students have expressed appreciation for the Trust's help toward their M.D. goal.**

PMS at AMA

■ Pennsylvania's delegation figure importantly in the Chicago conventio of the American Medical Associatio in late June. Upper left, Elmer G Shelley, M.D., North East, picture shortly after being named chairma of the AMA Judicial Council.

■ Above, left to right, Daniel H. Bee M.D., Indiana, Russell B. Roth, M.D. Erie, elected vice-speaker of the AM House of Delegates, and W. Benso Harer, M.D., Upper Darby.

■ Center, James Z. Appel, M.D. Lancaster, immediate past president o the AMA, leaves the floor of the Hous at the convention's close.

■ Lower left, one of the breakfas sessions of the PMS delegation.

■ Below, Bond L. Bible, Ph.D., former Pennsylvanian (now secretar to the AMA Council on Rural Health) chats with George A. Rowland, M.D.. Millville, interim member of the PM Board of Trustees and Councilors, an chairman of the PMS Commission o Rural Health.

TAPE RECORDER—Clarence A. Tinsman, M.D., intones health information as John A. Price, PMS staff member, mans the controls of the recording device. Dr. Tinsman, director of the state Health Department's Division of Chronic Diseases, is one of the "voices" of Instant News.

American Medical Association

BASIC FACTS

(Sixth in a series presenting background information about the history, purpose, and accomplishments of the AMA. Source: AMA News Department.)

Libraries and Records

The AMA's medical library is an international collection of some 2,200 periodicals on basic medical science and clinical medicine, plus a comprehensive collection of pamphlets and reprints. It offers free to members a periodical-lending service and a package library service.

The AMA also reads hundreds of foreign medical journals in behalf of physicians, abstracting significant articles.

The Association maintains a medical-film library of more than 250 subjects. Its file of more than 7,000 indexed references on medical films is the largest in the United States.

As part of its constant battle against quackery, the AMA's Department of Investigation has one of the largest collections of nostrums and quack gadgets and medications in the United States, and maintains the most extensive files extant on medical quackery.

The Records Department maintains complete records on all licensed physicians of (not necessarily *in)* the United States. A file is started when a student enters medical school, and continues throughout his career and until several years after his death. These records are more complete than those on members of any other profession.

The Association has a large library of briefs from medicolegal cases, plus other medicolegal information and materials.

Other AMA departments have films, exhibits, and extensive files on a variety of subjects.

PMS 'Instant News' Radiocast 'First'

Blending medical information, physician cooperation, and electronics, the State Society's Council on Public Service has come up with *Instant News,* an ultramodern tool with which Pennsylvania M.D.'s can communicate their concern for the public's well-being.

Health messages for broadcasting use are transmitted via telephone by physicians throughout the state, and picked up on a tape recorder in the Council office. Items are also taped "in person" at State Society Headquarters (see photo). The talks are thus available on an instant's notice when radio station personnel request program material on health topics.

Lists of available recordings are sent to the stations at least semimonthly. Also, when a station requests material that has not yet been recorded, the Public Service staff may arrange for a knowledgeable M.D. to transmit the desired information by telephone for recording on tape. Usually within minutes, the material has been relayed to the radio station.

More than 128 messages were supplied to 68 stations throughout the state during a recent week.

The *Instant News* service is unique in Pennsylvania, and possibly in the nation.

PCMS Health Fair Set for October

Classes, lectures, and two hundred exhibits and demonstrations are scheduled for the October 15-22 Health Fair in the Philadelphia Civic Center, sponsored by the Philadelphia County Medical Society.

In a message to Malcolm W. Miller, M.D., chairman of the Health Fair committee, William H. Stewart, M.D., U.S. Surgeon General, commended the county society for presenting the fair.

Dr. Stewart said, in part, "by making available to the people of the Philadelphia area accurate and up-to-date information on health and medical care, the Health Fair can contribute significantly to their well-being."

Medical groups, health organizations, and schools of the eight-county Delaware Valley area will participate in the fair.

HEAR YE—At a gathering outside the Philadelphia County Medical Society's headquarters building, Edmund L. Housel, M.D., PCMS president, announces the Greater Philadelphia Health Fair to be held October 15-22.

summer 1966

DORSEY Season

A journal within a journal published quarterly in the interests of better medicine by Dorsey Laboratories, a division of The Wander Company, Lincoln, Nebraska. Address communications to Raymond C. Pogge, M.D., Director of Medicine.

this issue: emergency anesthesia and the common cold

When emergency anesthesia is complicated by the common cold

Barry Belonsky, M.D., F.A.C.A.
Staff Anesthesiologist, Hospital of The Albert Einstein College of Medicine, New York City

Medical facilities are often presented with unfamiliar patients who have unknown health histories. This is particularly true in emergency situations that arise due to accidents or acute illnesses. These cases may need prompt care requiring anesthesia, and if they involve colds, nasal allergies or other upper respiratory infections, can account for many complications which make up a major hazard during emergency anesthesia.

Administration of general anesthesia to a patient with a cold or upper respiratory infection is a hazardous undertaking. It should be avoided if at all possible. Indeed, the presence of U.R.I. is good reason for postponement of elective surgery.[1] In emergency surgery, regional or local block should be considered, but if general anesthesia is mandatory, it should be approached with utmost caution.

Since the attitude of "emergency surgery — hurry" has been replaced by "emergency surgery — watch out",[2] a knowledge of the complications is a great help in preventing them. Here is a brief outline of the problems involved and their treatment. Prevention of the complications is discussed later.

Complications during the induction of anesthesia

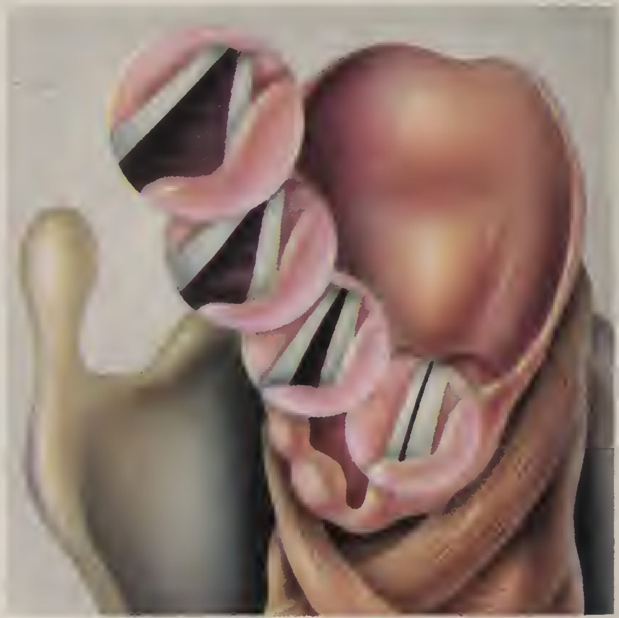
Most of the complications are a direct result of secretions and some a result of accompanying secondary infection. For example, *airway obstruction* due to excessive secretions occurs very commonly and is the direct effect of the cold. Respiratory exchange may be obstructed at any time during anesthesia because of excessive secretions, but is most likely to occur during induction. Suction apparatus must be available to overcome this.[3]

Excess secretions which stimulate and irritate the epiglottis and vocal chords can cause *laryngeal stridor and obstruction.* This can lead to complete laryngeal closure with resultant anoxia and death.

Bronchospasm and laryngospasm can result from secretions penetrating the bronchi and bronchioles. In laryngospasm, there are both inspiratory and expiratory stridor and difficulty in inflating the chest; in bronchospasm there is an expiratory wheeze, but not as much difficulty in inflation, although some resistance may be felt. Stridor is due to partial or complete closure of the vocal cords in spasm and the "crowing" sound is almost pathognomonic.

Secretions obstruct the nasal airways. This produces *difficulty in ventilation* through the mouth until the patient is deep enough to place an oral airway. An intravenous agent can be given to facilitate the induction of anesthesia.

Difficulties can arise if intubation is performed to ventilate the patient. For example, teeth can be broken by too vigorous attempts at intubation, or the intubation itself may be technically difficult due to secretions obstructing the view of the glottis. The postoperative sequelae of intubation ranges from mild laryngitis to pneumonia with atelectasis, and are seen far more commonly in patients suffering from colds than in normal patients.



Successive stages of laryngospasm which produce the characteristic stridor or "crowing" sound.

Progression of bronchioles into bronchospasm.

Complications during the maintenance of anesthesia *Bronchospasm* can occur in an unintubated patient due to secretions entering the bronchial tree from above, and acting as an irritant to the bronchi and bronchioles. Secretions accumulate quickly and the patient has to be suctioned continually. The whole cycle of coughing, bucking, laryngospasm and bronchospasm may ensue. The difficult decision here is whether it is better to suction the patient continually or to use an endotracheal tube which protects the cords and bronchi but introduces the risk of attendant complications.

Postoperative complications Postoperatively, complications can be more serious than even the intra-anesthesia complications, and occur much more frequently in a patient who has been intubated.[4]

Sore throat and pharyngitis can result both from the preoperative upper respiratory infection and from the drying of the mucous membranes which occurs during anesthesia.

Tracheitis and bronchitis often result from secretions trickling down the tracheobronchial tree.

Laryngitis is frequently seen in patients with upper respiratory infections who have been intubated. There is a significant increase in the incidence of laryngitis compared to that in patients without upper respiratory infections.

Subglottic edema is a condition which occurs mainly in children who have been intubated. This pathology results from an exudate developing in the areolar tissue just below the cords. Because of the small size of the child's trachea, even a 1 mm increase in size of the mucous membrane can severely impair the air passage. Children exhibit this by severe expiratory stridor and may even become cyanotic. This may so severely embarrass the child's breathing that it must be treated vigorously. Most authorities agree on the treatment[5,6,7,8] consisting of a high oxygen concentration in the inspired air (60%), plus high humidity (close to 100%). Adequate parenteral fluid intake and slight cooling of the body temperature (by a cooled oxygen tent) also help in mild cases. In severe cases, there may be hypoxia which increases the restlessness and the oxygen demand rises. Sedation is often necessary, although concomitant depression of the respiratory center is undesirable. An antihistaminic accomplishes this purpose well, and adds sedation. Since there is always a possibility that an allergic response plays a role in edema, some relief of the respiratory distress may occur. Steroids should be used to control inflammatory and allergic phenomena and swelling. If all this fails, and the patient is still restless and hypoxic, a tracheostomy should be performed immediately.

(concluded on following page)

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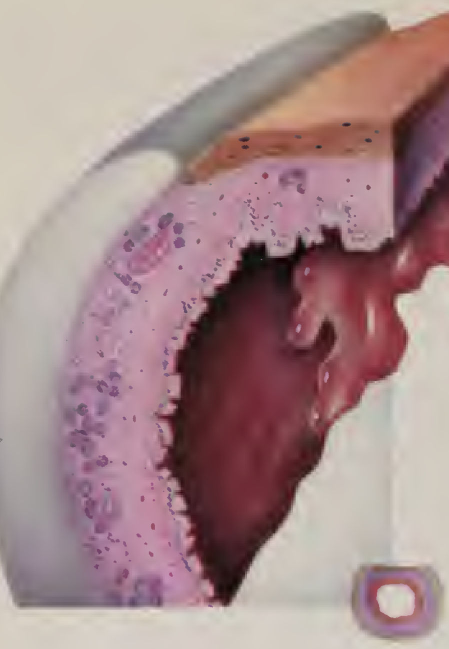

Cross section of trachea showing subglottic edema and lumen reduction due to mucous membrane congestion.

Pneumonia may also follow anesthesia administered to a patient with a cold. This can be caused by accumulated secretions becoming secondarily infected and causing consolidation of the lung. *Atelectasis* of the lung can result if one of the bronchioles becomes plugged by secretions, preventing aeration of the distal part of that lung. This is seen more frequently following upper respiratory infection because dry anesthetic gases aggravate the infection, causing secretions to change from watery to thick and viscid, and consequently difficult to suction.

Prevention of complications

The first rule to prevent complications, of course, is to use a regional or local anesthesia whenever possible. But when emergency surgery is a must, in spite of the presence of a cold, allergy, or upper respiratory infection, here are some ways to prevent complications.

Give nose drops preoperatively. This can help shrink the congested nasal mucous membranes and reduce secretions for better air passage. (Results of this method are sometimes unsatisfactory because of the short duration of effect or rebound congestion.) For longer effect, oral antihistamines with nasal decongestants are often given to provide and maintain a drying effect on secretions.

To clear the tracheobronchial tree, instruct the patient to cough preoperatively. Cold steam or water nebulizers effectively humidify the nasal, pharyngeal and bronchial passages and often make the patient more comfortable. Tenacious secretions become more watery under humidification, clear more thoroughly preoperatively and are more easily suctioned from the airway during anesthesia.

Give intravenous fluids to those patients who appear dehydrated due to a cold. In a well hydrated patient the respiratory tract secretions are less viscid and more watery. This is particularly true in asthmatics.

Summary:

Administration of emergency anesthesia to a patient with a cold or upper respiratory infection can lead to a chain of events that may result in increased postoperative morbidity and even death. This is because of the excess secretions formed in these conditions. Preoperative measures to prevent or reduce these secretions should be undertaken and will result in smoother and safer anesthesia.

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Dosage: Adults—2 teaspoonfuls; Children 6 to 12 years—1 tsp.; Children 1 to 6 years—½ tsp. Administer every four hours. Side effects: Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness, or gastrointestinal upsets. Precautions: The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

(Advertisement)

Official Call to the 1966 Annual Session

The House of Delegates of the Pennsylvania Medical Society will convene in Annual Session at 3 P.M. Sunday, October 9, 1966, in the Pittsburgh Room, Lower Lobby, Penn-Sheraton Hotel, Pittsburgh, to transact any lawful business provided for in the Constitution and By-laws of the Pennsylvania Medical Society. Subsequent meetings of the House of Delegates will be held at 3 P.M. Wednesday, October 12, and at 8:30 A.M. Thursday, October 13.

Proposed Amendments to Constitution and By-laws

Note: Material which is underscored is being added. Material which is enclosed in [brackets] is being deleted.

The following proposed amendments to the Constitution and By-laws have been prepared by the Standing Committee on Constitution and By-laws, and are being presented in accordance with the requirements of Article XV of the Constitution and Chapter XVII of the By-laws:

Subject: Change in the date for determining the number of delegates to the House of Delegates from March 31 of the current year to December 31 of the preceding year.

Constitution

ARTICLE VI—HOUSE OF DELEGATES

Amend Section 2 as follows:

SECTION 2. Composition.—The House of Delegates shall be composed of (a) delegates (or their alternates) elected by the Component Societies in the proportion of one delegate for every one hundred or fraction thereof of its Active Members in this Society whose dues are paid or excused as of December 31 [March 31] of each preceding year, whose term of office shall be the calendar year following their election or for a term in excess of one year if such component society's by-laws provide for a longer term than one year provided that at least one delegate and one alternate are elected by such component society each year, and whose names have been submitted to the office of the Executive Director of the Pennsylvania Medical Society as instructed by the Executive Director, and in January of each year the Executive Director of the Pennsylvania Medical Society shall certify to each Component Society the number of delegates to which it is entitled during the current year [who shall take office for a period of at least one year as of, and be certified annually to the office of the Executive Director of this Society by, June 1]; (b) the secretaries of the Component Societies in office at the time of any meeting of the House of Delegates; and (c) ex-officio, but without the right to vote, the Speaker and Vice-Speaker of the House of Delegates, the President, President-elect, the Vice-Presidents, the Secretary, the Trustees and Councilors, and the members of the Judicial Council of this Society, the ex-presidents of this Society and the presidents of the Component Societies, except that any of the foregoing ex-officio delegates, other than those prohibited from so doing by Article V of this constitution, may at the same time serve as voting delegates duly designated as such by their respective Component Societies, and except that the Speaker, or the Vice-Speaker when serving as Speaker, shall have the right to vote in all cases where his vote would change the result of a vote taken other than a vote decided by ballot.

By-laws

CHAPTER XVI—COMPONENT SOCIETIES

Amend Section 10 as follows:

SECTION 10.—*Delegates to this Society.* Each Component Society shall [at some meeting held between March 31 and June 1 of each year] elect, from among its members who are Active Members of this Society, delegates and alternates to the House of Delegates of this Society in accordance with the provisions of Article VI of the Constitution[, and certify the election thereof as required by said article of the Constitution]. A Component Society may, if it so desires, hold the election of delegates and alternates at some other date, not earlier than October 1 and not later than December 31 of the year preceding the [June 1] certification date. In such event the By-laws of the Component Society shall contain appropriate provisions for determining the manner in which the elected delegates and alternates shall be reduced should they prove to be a number in excess of those to which the Component Society is entitled on the basis of the number of its members on the subsequent January 1 [March 31], and appropriate provisions for the election prior to June 1 of additional alternates and delegates should the Component Society be entitled to more than those elected at the earlier election. [Nothing herein shall be construed to prevent the election of delegates and alternates by Component Societies for terms in excess of one year provided that at least one delegate and one alternate are elected by that Component Society each year.]

Elections

Among the general officers to be elected during this Annual Session of the House of Delegates will be:

A President-Elect, four Vice-Presidents, a Secretary, a Speaker of the House of Delegates, and a Vice-Speaker of the House of Delegates.

A Trustee and Councilor for the Second Councilor District, to serve for five years, to succeed William A. Limberger, M.D., Chester County, who is eligible for reelection, having served one term of five years.

A Trustee and Councilor for the Fourth Councilor District, to serve for a term of two years, to complete the unexpired term of Joseph J. Leskin, M.D., Schuylkill County, deceased. George A. Rowland, M.D., Columbia County, is serving as interim Trustee and Councilor by appointment of the Board of Trustees and Councilors.

A Trustee and Councilor for the Eighth Councilor District, to serve for a term of five years, to succeed James A. Biggins, M.D., Mercer County, who is eligible for reelection, having served one term of three years.

A Trustee and Councilor for the Eleventh Councilor District, to serve for a term of five years, to succeed Clarence J. McCullough, M.D., Washington County, who is ineligible for reelection, having served one term of three years and one term of five years.

Also to be elected for a two-year term, beginning January 1, 1967, will be *six delegates and six alternate delegates to the American Medical Association.*

Delegates whose terms expire December 31, 1966 are:

Daniel H. Bee, M.D., Indiana County
John S. Donaldson, Jr., M.D., Allegheny County
Gilson Colby Engel, M.D., Philadelphia County

M. Louise C. Gloeckner, M.D., Montgomery County

William A. Limberger, M.D., Chester County

William B. West, M.D., Huntingdon County

Alternate delegates whose terms expire December 31, 1966 are:

David A. Cooper, M.D., Philadelphia County

A. Reynolds Crane, M.D., Philadelphia County

Raymond C. Grandon, M.D., Dauphin County

Park M. Horton, M.D., Susquehanna County

John B. Lovette, M.D., Cambria County

George A. Rowland, M.D., Columbia County

Also to be elected will be *a member to serve for three years on the Committee to Nominate Delegates and Alternates to the American Medical Association* to succeed Hugh Robertson, M.D., Philadelphia County, resigned. John B. Montgomery, M.D., Philadelphia County, is serving as an interim member by appointment of the Board of Trustees and Councilors.

Also to be elected, upon nomination of the Board of Trustees and Councilors, will be *one member of the Judicial Council,* for a term of five years, to succeed William B. Patterson, M.D., Huntingdon County, deceased. Lewis T. Buckman, M.D., Luzerne County, is serving as an interim member by appointment of the Board of Trustees and Councilors.

Also to be elected, upon nomination of the Board of Trustees and Councilors, will be *two members of the Committee on Convention Program,* to serve for three years, to succeed Jerome Chamovitz, M.D., Allegheny County, and Edward G. Torrance, M.D., Delaware County, who are completing their terms.

Also to be elected, upon nomination of the Board of Trustees and Councilors, will be *one member of the Committee on Convention Program,* to serve for one year, to complete the unexpired term of C. Wilmer Wirts, M.D., Philadelphia County, resigned. James A. Collins, Jr., M.D., Montour County, is serving as an interim member by appointment of the Board of Trustees and Councilors.

Also to be elected is a *District Censor from each component county medical society,* to serve for one year following the Annual Session.

The nominees submitted by the individual component county medical societies are as follows: *Adams,* James H. Allison; *Allegheny,* Robert A. Schein; *Armstrong,* Arthur R. Wilson; *Beaver,* Herman Bush; *Bedford* (no nomination); *Berks,* John C. Stolz; *Blair,* John W. Hurst; *Bradford,* Willis A. Redding; *Bucks,* Stanley F. Peters; *Butler,* John Shadle; *Cambria,* Warren F. White; *Carbon,* James M. Steele; *Centre,* H. Richard Ishler; *Chester,* Robert E. Brant; *Clarion,* Theodore R. Koenig; *Clearfield,* Fred Pease; *Clinton,* Samuel C. Bower; *Columbia,* G. Paul Moser; *Crawford,* John E. Lewis; *Cumberland,* Hans S. Roe; *Dauphin,* Hamblem C. Eaton; *Delaware,* John B. Klopp; *Elk-Cameron,* James L. Hackett, Sr.; *Erie,* Joseph M. Faso; *Fayette,* Othello S. Kough; *Franklin,* Albert W. Freeman; *Greene,* William W. Bartholomew; *Huntingdon,* Frederic H. Steele; *Indiana,* Kenneth H. Sayers; *Jefferson,* Francis J. Trunzo; *Lackawanna,* Clement B. Potelunas; *Lancaster,* Charles P. Hammond; *Lawrence,* Gerald H. Weiner; *Lebanon,* C. Ray Bell, Jr.; *Lehigh,* Willard C. Masonheimer; *Luzerne,* Donald F. Closterman; *Lycoming,* Wilfred W. Wilcox; *McKean,* Ralph E. Hockenberry; *Mercer,* Gilbert H. Diehl; *Mifflin-Juniata,* John R. W. Hunter, Jr.; *Monroe,* Walter H. Caulfield; *Montgomery,* Elmer R. Place; *Montour,* Leslie R. Angus; *Northampton,* John A. Hampsey; *Northumberland,* George R. Wentzel; *Perry,* Paul Karlik; *Philadelphia,* Charles M. Thompson; *Potter,* Herman C. Mosch; *Schuylkill,* Joseph T. Marconis; *Somerset,* Alexander Solosko; *Susquehanna,* Raymond C. Davis; *Tioga,* Joseph M. DiNardo; *Union,* Harold H. Evans; *Venango,* James H. McClelland, Jr.; *Warren,* Robert D. Donaldson; *Washington,* Frank D. Hazlett; *Wayne-Pike,* John Petkus; *Westmoreland,* Leslie S. Pierce; *Wyoming,* John J. Rinehimer, Jr.; *York,* William C. Langston.

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*** Similar courses are being prepared for the 1966 TEACHING INSTITUTE to be held October 9-11 in Pittsburgh.**

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Precautions: Use with caution in patients hypersensitive to sympathomimetic compounds, who have coronary or cardiovascular disease, or are severely hypertensive.

Dextro-amphetamine sulfate: Use by unstable individuals may result in psychological dependence.

Meprobamate: Careful supervision of dose and amounts prescribed is advised; especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of pre-existing symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dose—operation of motor vehicles, machinery or other activity requiring alertness should be avoided. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness.

Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.

Meprobamate: Drowsiness may occur and can be associated with ataxia, the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor, and respiratory collapse.

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New AMA Unit Formed

The newly-organized AMA Department of Health Care Services will deal with group practice, aging, maternal and child care, community health services, voluntary health agencies, manpower, insurance and prepayment, the business side of medical practice, and patterns for the organization and delivery of medical care.

F. J. L. Blasingame, M.D., executive vice president of the AMA, announced that Roy F. Perkins, M.D., Alhambra, California, will head the department.

Dr. Perkins is a past president of the San Gabriel Valley Branch of the Los Angeles County Medical Association.

SKF-AAGP Film

Someone you can trust—someone you can be, a 28-minute color film encouraging the high school student to consider an M.D. career, is being produced by Smith Kline and French for the American Academy of General Practice.

AAGP's medical career stimulation activities began in 1961 with "MORE," a widely successful program that has inspired similar projects throughout the medical profession.

MORE is now part of a broader program, "Family Practice Careers," designed to reach high school, college premedical, and medical school students, and aimed at attracting many of them into family medical practice.

MCMS CITATION—Honored at a dinner-meeting of the Montour County Medical Society and its auxiliary, Francis W. Davison, M.D., senior consultant in ophthalmology at The Geisinger Medical Center, receives a citation and a handshake from James M. Cole, M.D., director of the department of ophthalmology. Dr. Davison formerly headed the otolaryngology department.

Erie 'Hopefuls' Form Club

Meeting in Hamot Hospital auditorium, Erie high school students interested in medical careers discussed organizing a "Future Physicians' Club," under sponsorship of the Erie County Medical Society. Directing the program is B. Leonard Snider, M.D. There are now seven such clubs in high schools throughout Pennsylvania.

Re: References

How long should reference lists be? There is rather general agreement that in most articles in state medical journals, a list of five or six references is usually adequate. Except in special review articles, or in research articles, complete lists of references are not needed, and, in fact, are out of place. As a general guide, include in reference lists, only (1) articles which have actually been read in the original (not an abstract or a translation), and (2) articles which are actually mentioned in the text of the paper.

How many reference numbers should be in the text? Remembering that they distract the reader as he goes through the article, eliminate them if they serve no purpose. If a quoted author appears in the reference list only once, obviously the work listed is the one to which references are made, and no additional "superior numbers" are needed beyond the first one in the text.

Papers are written to be read. Help keep them interesting by avoiding distractions whenever possible.

Adapted from an item in the *Journal of the Kansas Medical Society,* May, 1966.

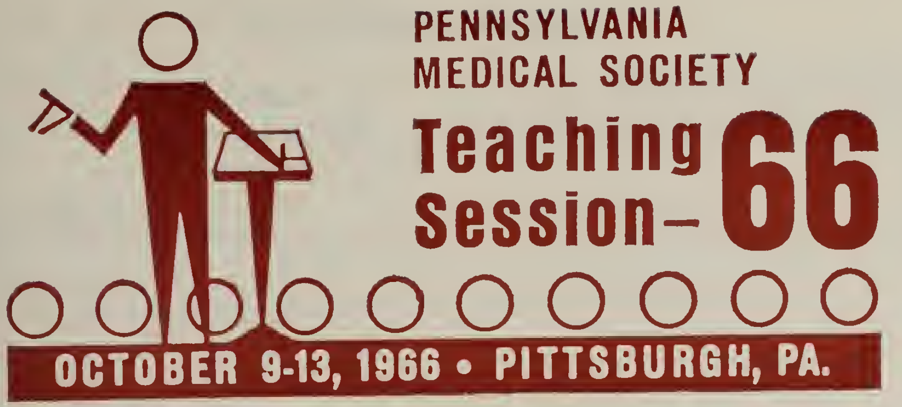
PMS-PDH Project Trains Ambulance Attendants

Using a manual which members and former members of the State Society's Council on Scientific Advancement helped prepare, scores of Pennsylvania physicians have this past year conducted courses enabling more than one thousand state residents to gain greater skill as ambulance attendants.

Since 1961, 4,644 Pennsylvanians have received formal instructions sponsored by the state Department of Health. The 50-hour course orients ambulance attendants in treatment of injuries and in the care of victims of heart attacks, strokes, and other serious illnesses, while these people are being transported to hospitals.

Robert Horn, environmental safety chief for the Pennsylvania Health Department, points out that medical societies are cooperating fully in the education program. "We have county medical societies providing doctors to serve as instructors, and we have the Pennsylvania Medical Society actively promoting the course as a means of making an ambulance attendant a potential life-saver, not just a driver of ambulances."

Groups whose members have taken the course include: 342 fire companies with ambulance services, 36 Red Cross chapters, 19 auxiliary police forces, 17 Civil Defense units, 40 funeral homes with ambulances, 14 hospital ambulance corps, 24 rescue squads, 165 private ambulance services, and 49 miscellaneous organizations owning ambulances.



PENNSYLVANIA MEDICAL SOCIETY

Teaching Session—66

OCTOBER 9-13, 1966 • PITTSBURGH, PA.

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MONDAY, OCTOBER 10

CORONARY HEART DISEASE

GENERAL MEDICAL PROBLEMS

1:30 p.m.—2:30 p.m

PANEL 1

CURRENT CORONARY ARTERY SURGERY—HOW SUCCESSFUL TO DATE?

Moderator: Louis A. Soloff, M.D.
Professor of Clinical Medicine Temple University School of Medicine

Charles K. Friedberg, M.D.
Mount Sinai Hospital, New York City
Donald B. Effler, M.D.
Cleveland Clinic
William H. Sewell, M.D.
Guthrie Clinic
Dwight E. Harken, M.D.
Harvard Medical School
Arthur M. Vineberg, M.D.
Royal Victoria Hospital, Montreal

PANEL 4

ROUTINE AUTOPSY—HAS IT OUTLIVED ITS USEFULNESS?

Moderator: Averill A. Liebow, M.D.
Professor of Pathology Yale University School of Medicine

Edwin Fisher, M.D.
VA Hospital, Pittsburgh
Jack D. Myers, M.D.
University of Pittsburgh School of Medicine
Peter A. Herbut, M.D.
Jefferson Medical College
Russell J. Eilers, M.D.
University of Kansas Medical Center

2:30 p.m.—3:30 p.m.

PANEL 2

CORONARY CARE UNITS—TIGER BY THE TAIL?

Moderator: James Warren, M.D.
Professor of Medicine Ohio State University

Thomas Killip, III, M.D.
New York Hospital—Cornell Medical Center
Lawrence E. Meltzer, M.D.
Presbyterian-University of Pennsylvania Medical Center
Dwight E. Harken, M.D.
Harvard Medical School
William J. Grace, M.D.
New York University School of Medicine

PANEL 5

CANCER CHEMOTHERAPY—WHAT DOES IT REALLY ACCOMPLISH?

Moderator: Isadore Brodsky, M.D.
Head, Hematology Section, Department of Medicine Hahnemann Medical College

Thomas C. Hall, M.D.
Children's Cancer Research Foundation, Inc., Boston
Wallace N. Jensen, M.D.
University of Pittsburgh School of Medicine
S. Benham Kahn, M.D.
Hahnemann Medical College
William Regelson, M.D.
Roswell Park Memorial Institute, Buffalo

4:00 p.m.—5:00 p.m.

PANEL 3

VASOCONSTRICTORS AND VASODILATORS— HAS CLINICAL EXPERIENCE JUSTIFIED THEIR USE IN ACUTE AND CHRONIC CORONARY HEART DISEASE?

Moderator: William A. Sodeman, M.D.
Dean, Jefferson Medical College

Maurice McGregor, M.D.
Royal Victoria Hospital, Montreal
Henry I. Russek, M.D.
U.S. Marine Hospital, Staten Island
Charles K. Friedberg, M.D.
Mount Sinai Hospital, New York City
William H. Sewell, M.D.
Guthrie Clinic

PANEL 6

TONSILLECTOMY— WHERE DO WE DRAW THE LINE?

Moderator: Robert I. Wise, M.D.
Magee Professor and Head, Department of Medicine Jefferson Medical College

Peter N. Pastore, M.D.
Medical College of Virginia
Charles H. Rammelkamp, M.D.
Cleveland Metropolitan General Hospital

TUESDAY, OCTOBER 11

OBSTETRICS & GYNECOLOGY

1:30 p.m.—2:30 p.m.

PANEL 7

THERAPEUTIC ABORTION— TOO OFTEN OR NOT ENOUGH?

Moderator: Robert E. Hall, M.D.
Assistant Clinical Professor, Obstetrics & Gynecology Columbia-Presbyterian Medical Center

Louis L. Meyers, M.D.
University of Pittsburgh School of Medicine
Paul A. Bowers, M.D.
Jefferson Medical College
Richard L. Day, M.D.
Planned Parenthood—World Population, New York City

2:30 p.m.—3:30 p.m.

PANEL 8

THERAPY OF THE POST-MENOPAUSE— ESTROGENS FOREVER?

Moderator: T. Terry Hayashi, M.D.
Professor of Obstetrics & Gynecology University of Pittsburgh School of Medicine

Saul B. Gusberg, M.D.
Mount Sinai Hospital, New York City
David Charles, M.D.
Magee-Women's Hospital
Clayton T. Beecham, M.D.
Geisinger Medical Center

4:00 p.m.—5:00 p.m.

PANEL 9

"THE PILL"— IS IT SAFE?

Moderator: Mary DeWitt Pettit, M.D.
Professor and Chairman Department of Obstetrics and Gynecology Woman's Medical College

J. F. Hulka, M.D.
University of Pittsburgh School of Medicine
Alvin F. Goldfarb, M.D.
Jefferson Medical College
Jessica Lewis, M.D.
University of Pittsburgh School of Medicine

ENDOCRINOLOGY

1:30 p.m.—2:30 p.m.

PANEL 10

DIABETES— DOES STRICT THERAPY PREVENT OR CONTROL COMPLICATIONS?

Moderator: Rachmiel Levine, M.D.
Professor and Chairman Department of Medicine New York Medical College

Charles R. Shuman, M.D.
Temple University School of Medicine
James B. Field, M.D.
University of Pittsburgh School of Medicine
Alexander Marble, M.D.
Harvard Medical School

2:30 p.m.—3:30 p.m.

PANEL 11

RADIOACTIVE IODINE— HAS IT LIVED UP TO ITS ORIGINAL PROMISE IN DIAGNOSIS AND THERAPY?

Moderator: Daniel Mintz, M.D.
Chief of Medicine Magee-Women's Hospital

Jerrold D. Hydovitz, M.D.
University of Pittsburgh School of Medicine

4:00 p.m.—5:00 p.m.

PANEL 12

OBESITY— DO WE REALLY UNDERSTAND IT?

Moderator: Thaddeus S. Danowski, M.D.
Professor of Medicine University of Pittsburgh School of Medicine

LeRoy W. Earley, M.D.
University of Pittsburgh School of Medicine
Robert E. Olson, M.D.
St. Louis University School of Medicine

WEDNESDAY, OCTOBER 12

THERAPEUTICS

VASCULAR DISEASE

2:00 p.m.—3:00 p.m.

PANEL 13

ANTIBIOTIC THERAPY— HOW CAN WE CREATE ORDER OUT OF CHAOS?

Moderator: Hobart A. Reimann, M.D.
Professor of Medicine Hahnemann Medical College

Francis J. Sweeney, Jr., M.D.
Jefferson Medical College
Herbert S. Heinemann, M.D.
University of Pittsburgh School of Medicine
C. William Hanson, M.D.
University of Pennsylvania School of Medicine

PANEL 16

ARTERIOSCLEROSIS— HOW IMPORTANT IS DIET IN PROPHYLAXIS AND TREATMENT:

Moderator: Campbell Moses, M.D.
Director, Addison H. Gibson Laboratory, University of Pittsburgh School of Medicine

Mark D. Altschule, M.D.
Harvard Medical School
Peter Kuo, M.D.
University of Pennsylvania School of Medicine

3:00 p.m.—4:00 p.m.

PANEL 14

MANAGEMENT OF ARTHRITIS— WHAT HAS LONG-TERM CHEMOTHERAPY REALLY ACCOMPLISHED?

Moderator: Harry M. Margolis, M.D.
Clinical Associate Professor of Medicine, University of Pittsburgh School of Medicine

Currier McEwen, M.D.
New York University Medical Center
Charley J. Smyth, M.D.
University of Colorado Medical Center
Joseph L. Hollander, M.D.
University of Pennsylvania School of Medicine
James Sydney Stillman, M.D.
Robert Breck Brigham Hospital, Boston

PANEL 17

CEREBROVASCULAR DISEASE— HAVE SURGERY, ANTICOAGULANTS AND VASODILATORS PROVED THEIR WORTH?

Moderator: John Moossy, M.D.
Professor of Neuropathology University of Pittsburgh School of Medicine

Phillip Gordy, M.D.
Jefferson Medical College
Fletcher McDowell, M.D.
Bellevue Hospital, New York City
Charles Rob, M.D.
University of Rochester School of Medicine
Bernard J. Alpers, M.D.
Jefferson Medical College
John S. Meyer, M.D.
Wayne State University School of Medicine

4:15 p.m.—5:15 p.m.

PANEL 15

TRANQUILIZERS AND ENERGIZERS— HOW MUCH DO THEY ACCOMPLISH IN EVERYDAY PRACTICE?

Moderator: Homer V. Capparell, M.D.
Clinical Associate Professor of Psychology, University of Pittsburgh School of Medicine

Frank J. Ayd, Jr., M.D.
Editor, International Drug Therapy Newsletter, Baltimore
Fritz A. Freyhan, M.D.
St. Vincent Hospital and Medical Center, New York City
J. Martin Myers, M.D.
University of Pennsylvania Hospital
Walter J. Reis, M.D.
University of Pittsburgh School of Medicine
Robert Gibson, M.D.
Shepperd and Enoch Pratt Hospital, Towson, Md.

PANEL 18

HYPERTENSION— WHAT DOES THERAPY REALLY ACCOMPLISH?

Moderator: John H. Moyer, Jr., M.D.
Chairman, Department of Internal Medicine, Hahnemann Medical College

William Hollander, M.D.
Boston University
Alvin P. Shapiro, M.D.
University of Pittsburgh School of Medicine
Milton Mendlowitz, M.D.
Mount Sinai Hospital, New York City
Frank A. Finnerty, Jr., M.D.
District of Columbia General Hospital, Washington

WELCOME, NEW MEMBERS!

These M.D.'s have joined the State Society
in recent months:

ALLEGHENY COUNTY:

Jules H. Bohnn, Jr., 3811 O'Hara Street, Pittsburgh 15312.

Joseph Fine, Children's Hospital, Pittsburgh 15213.

Malcolm A. MacAulay, Magee-Woman's Hospital, Pittsburgh 15213.

BUCKS COUNTY:

Carl I. Simons, 8143 Farnsworth Street, Philadelphia 19152.

CHESTER COUNTY:

William T. Brandfass, 1410 Russell Road, Paoli 19301.

Edward T. Deutsch, Jr., 3 Birch Road, Malvern 19335.

Earl T. Lewis, Wyeth Laboratories, Box 8299, Philadelphia 19101.

Frederick L. Nin, R. D. 2, Kennett Square 19348.

DAUPHIN COUNTY:

Jerry E. Borelli, Harrisburg State Hospital, Harrisburg 17105.

R. Douglas Cassel, 74 Hillside Circle, Camp Hill 17011.

Stephen J. Herceg, 2201 North Second Street, Harrisburg 17110.

Edwin H. Hopton, 40 East Chocolate Avenue, Hershey 17033.

MONTGOMERY COUNTY:

George R. Green, 1355 York Road, Abington 19001.

John H. Hopkinson, III, 1436 Amity Road, Rydal 19046.

Stephen B. Knowlton, Jr., Abington Memorial Hospital, Abington 19001.

SCHUYLKILL COUNTY:

Amilcar E. Longarini, 221 Mahantongo Street, Pottsville 17901.

WESTMORELAND COUNTY:

Miguel Jorge, Torrance State Hospital, Torrance 15779.

Eduardo J. Martinez, Torrance State Hospital, Torrance 15779.

YORK COUNTY:

Norman S. White, 2210 East Market Street, York 17402.

George F. Wright, 316 Potomac Avenue, Hanover, 17331.

WHAT'S NEW

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Available to physicians and others, for use at meetings and on programs, is a new exhibit on fat-controlled diets for serum cholesterol reduction.

An accompanying pamphlet on edible oils, shortenings, and margarines supplements American Heart Association booklets, *Planning Fat-Controlled Meals for 1,200 and 1,800 Calories,* and *Planning Fat-Controlled Meals for Unrestricted Calories.*

To borrow the exhibit, contact the Pennsylvania Heart Association, 2743 North Front Street, Harrisburg 17110.

Cryo-Ophthalmology Unit

Promotion of investigative and clinical applications of low-temperature techniques in treating eye ills is the aim of the newly-formed Society for Cryo-ophthalmology.

Scientific meetings will probably be held just before the annual sessions of the American Academy of Ophthalmology and Otolaryngology.

Inquiries and membership applications should be addressed to John G. Bellows, M.D., 30 North Michigan Boulevard, Chicago 60602.

ACOG Meetings in State

Pocono Manor Inn will be host to a meeting September 29-October 1 of District II, the American College of Obstetricians and Gynecologists.

Physicians are encouraged to suggest that their nurses attend a conference on obstetric, gynecologic, and neonatal nursing (District III of ACOG) October 6-7 at the Host Farm Motor Hotel, Lancaster.

Honorary DSc's Awarded

Charles L. Wilbar, Jr., M.D., Pennsylvania secretary of health, and Dr. Max Tishler, president of Merck Sharp & Dohme Research Laboratories, received honorary Doctor of Science degrees at the one hundred and forty-fifth commencement of the Philadelphia College of Pharmacy and Science.

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WILLIAM A. SODEMAN, M.D., *Dean and Vice President for Medical Affairs*

ANNUA
SCHEDULE FOR 196

October 9
SUNDAY

1:00 P.M.
Councilor District Meetings

3:00 P.M.
House of Delegates

(1st Session)

ALL DAY MONDAY

GOLF TOURNAMENT

October 10
MONDAY

All sessions 3 consecutive mornings

I. WORKSHOPS: (Attendance limited to 15 persons.)

8:00-11:15 A.M.
1. NEW TECHNIQUES IN OBSTETRICS AND GYNECOLOGY
2. INTENSIVE CARE TECHNIQUES
3. OBSTRUCTIVE PULMONARY DISEASE
4. NEW CONCEPTS IN PHYSICAL THERAPY AND REHABILITATION
5. NEW TECHNIQUES IN RENAL AND CARDIAC DISEASE
6. NEWER TECHNIQUES IN THE MANAGEMENT OF CANCER

MONDAY

11:45 A.M. to 1:15 P.M.

LUNCHEON WITH THE EXPERTS

CONTROVERSY IN TH

CORONARY HEART DISEASE

PANEL:

1. **1:30-2:30 P.M.**
Current Coronary Artery Surgery—How Successful to Date?

2. **2:30-3:30 P.M.**
Coronary Care Units—Tiger by the Tail?

BREAK

3. **4:00-5:00 P.M.**
Vasoconstrictors & Vasodilators—Has Clinical Experience Justified Their Use In Acute And Chronic Coronary Heart Disease?

GENERAL MEDICAL PROBLEMS

PANEL:

4. **1:30-2:30 P.M.**
Routine Autopsy—Has it Outlived its Usefulness?

5. **2:30-3:30 P.M.**
Cancer Chemotherapy—What Does It Really Accomplish?

BREAK

6. **4:00-5:00 P.M.**
Tonsillectomy—Where Do We Draw the Line?

1:30 P.M. Reference Committees
3:00 P.M. Reference Committees

8:00 P.M. Medicare In Action—A 3-Month Appraisal

October

TUESDAY

OBSTETRICS AND GYNECOLOGY

PANEL:

7. **1:30-2:30 P.M.**
Therapeutic Abortion—Often or Not Enough?

8. **2:30-3:30 P.M.**
Therapy of the Postm
pause—Estrogens Foreve

BREAK

9. **4:00-5:00 P.M.**
The "Pill"—Is It Safe?

6:00-8:00 P.M. Alumni Din
Jefferson Temple
Wor
U. c

ONVENTION
CIENTIFIC SESSIONS

DAY

October 12
WEDNESDAY

October 13
THURSDAY

All sessions 3 consecutive mornings

REVIEW COURSES: (Attendance unlimited.)

00-11:30 A.M. 1. CARDIOLOGY (including CARDIAC AUSCULTATION) (in association with Pennsylvania Heart Association)

2. RHEUMATIC DISEASE (in association with American Rheumatism Association)

CLINICAL CONFERENCES: (Attendance unlimited.)

30-11:00 A.M. 1. MEDICINE—Dr. Jack Myers and Staff, Presbyterian—University Hospital

2. PEDIATRICS—Dr. Donald N. Medearis and Staff, Children's Hospital

45 A.M. to 1:15 P.M.

LUNCHEON WITH
THE EXPERTS

WEDNESDAY

11:45 A.M. to 1:00 P.M.

LUNCHEON WITH THE EXPERTS

1:00 P.M. to 1:45 P.M.

ANNUAL ORATION

Controversy in Today's Medical Education
George T. Harrell, Jr., M.D.

ACTICE OF MEDICINE

ENDOCRINOLOGY

0-2:30 P.M.
etes—Does Strict Ther-
Prevent Complications?

0-3:30 P.M.
oactive Iodine—Has it
d Up To Its Original
nise in Diagnosis and
apy?

BREAK

0-5:00 P.M.
sity—Do We Really Un-
tand It?

THERAPEUTIC

PANEL:

13. 2:00-300 P.M.
Antibiotic Therapy—How Can We Create Order Out of Chaos?

14. 3:00-4:00 P.M.
Management of Arthritis—What does Long-Term Chemotherapy Really Accomplished?

BREAK

15. 4:15-5:15 P.M.
Tranquillizers & Energizers—Have They Proved Their Worth?

VASCULAR DISEASES

PANEL:

16. 2:00-3:00 P.M.
Arteriosclerosis—How Important Is Diet In Prophylaxis and Treatment?

17. 3:00-4:00 P.M.
Cerebrovascular Disease—Have Surgery, Anticoagulants, and Vasodilators Proved Their Worth?

BREAK

18. 4:15-5:15 P.M.
Hypertension—What Does Therapy Really Accomplish?

3:00 P.M.—House of Delegates (2nd Session)

M. Program for Public
Are We Becoming A
Nation of Addicts?

7:00 P.M.—State Dinner

8:30 A.M.

House of Delegates (3rd Session)

Specialty Meetings:

- Pa. Allergy Assoc.
- Pa. Chapt., Amer. Coll. of Chest Physicians
- Pa. Acad. of Ophthalmology & Otolaryngology
- Pa. Orthopaedic Soc.
- Pa. Acad. of Physical Medicine & Rehabilitation
- Pa. Phychiatric Soc.

Write Now

• **Booklets:** *Mental Health Jobs Today and Tomorrow,* 25c from the Public Affairs Committee, 381 Park Avenue South, New York, New York 10016. . . . *Rehabilitation Record,* also available, *Social Isolation: An Underrated Aspect of Disability,* both pamphlets available free of charge through Vocational Rehabilitation Administration, Department of Health, Education and Welfare, Washington, D.C. 20201. . . . *How We Can Get The Nurses We Need,* 25c per copy from the Public Affairs Committee, 381 Park Avenue South, New York, New York 10016. . . . *Key Facts,* gratis from the Public Information Office, Pharmaceutical Manufacturers' Association, 1155 Fifteenth Street, N.W., Washington, D.C. 20005. . . . *The Mentally Restored,* 5c, also *Hospital Improvement Projects,* 5c, both available through the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Aids to participating in a campaign to urge the public to see a doctor in the presence of chronic cough and shortness of breath. Contact the Pennsylvania Tuberculosis and Health Society, 311 South Juniper St., Philadelphia 19107. . . . *Hospital Highlights,* (on supervisory and training needs of personnel), from Samuel S. Dubin, Ph.D., 212 Engineering "E", The Pennsylvania State University, University Park 16802. . . . Folder on the AMA's 1966 medical journalism awards, from AMA headquarters, 535 North Dearborn Street, Chicago 60610.

• **Future Projections:** From American Heart Association local offices, on a loan basis—Film—*Cardiac Failure in Infancy* (16 mm., with sound); slides—*Examination of the Arterial System,* and *The Stroke Syndrome—Clinical and Diagnostic Aspects* (with accompanying booklet, *Diagnosis and Management of Stroke*). . . . Fifty-three 35 mm. medical and surgical films available gratis—listed in catalog obtainable from Eaton Medical Film Library, Eaton Laboratories, Norwich, N.Y. 13815.

• **More Booklets:** *The Cancer Story,* single copies gratis from the Public Health Service, Washington, D.C. 20201; quantities, twenty-five cents per copy, from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

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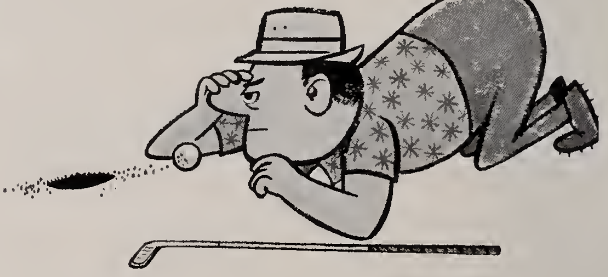

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OCTOBER 10, 1966
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HOSPITAL NEWS

- Effective July 1, Geisinger Medical Center hospital services to persons sixty-five years of age or older came under the aegis of medicare.

- An affiliation agreement between Lankenau Hospital and Jefferson Medical College calls for expansion of existing programs in medicine and surgery and institution of new ones—initially in obstetrics and gynecology, and subsequently in other departments. The affiliation is not a merger.

- Garland C. Llewellyn, Jr., has been appointed assistant administrator for the Albert Einstein Medical Center's Southern Division.

- Vocational rehabilitation units have been opened at Allentown State Hospital, Lehigh County, and at Mayview State Hospital, Allegheny County. Cooperating state departments of Mental Health, Labor and Industry, and Vocational Rehabilitation will implement the program.

Wills, Temple Affiliate

Affiliation of Wills Eye and Temple University hospitals has been announced by Dr. Millard E. Gladfelter, president of Temple University, and Samuel H. Daroff, president of the Board of City Trusts, whose members comprise the Wills Eye Hospital board of trustees.

Over the next several years:

1. The medical-staff members of Wills Eye Hospital will be integrated into the faculty of Temple University School of Medicine.

2. Wills Eye Hospital will affiliate with Temple University Hospital and be responsible for its ophthalmological service. Wills will retain complete autonomy and will be known as the Wills Eye Hospital, affiliated with Temple.

3. Wills will be relocated at the Temple University Health Sciences Center.

New Unit for Retarded

A 125-bed hospital geared to children with mental retardation and/or birth defects is under construction in Penn Township, Butler County. To be known as "Children's Rehabilitation Hospital," the structure is privately financed.

LEADING LADY—Newly-appointed assistant dean of Woman's Medical College is Mary Ellen Hartman, M.D. She will continue as assistant professor of anatomy, a post she has held for three years.

Most Hospitals in U.S. Meeting 'Rights' Criteria

Nationally, 6,505 hospitals—88.4 percent of those which may be eligible to participate in medicare—had met Social Security administration standards for civil rights compliance, as of June 1.

In Pennsylvania, 299 of 306 eligible hospitals have received administration approval. Mississippi has had 28 of a possible 133 approved, Georgia, 88 out of 176, and Alabama, 82 out of 146.

Board's New Home

Occupancy of the new home of the National Board of Medical Examiners, located at 3930 Chestnut Street, Philadelphia, is scheduled for this month. It is the first new headquarters building of a professional medical education and research organization to be constructed in the West Philadelphia section.

TOP GMC INTERNS—Pictured with Howard A. Patterson, M.D. (second from left), president of the American College of Surgeons, and Harold L. Foss, M.D., (second from right), emeritus chief of staff of The Geisinger Medical Center, are "high grade" interns (from left) Drs. John C. Steiner, Lon W. Castle, and William F. Pharr. The interns were honored for outstanding professional performance and character, during commencement ceremonies at which Dr. Patterson was principal speaker.

Unit Plans Animal Farm

Plans are progressing, under a new Federated Medical Resources group comprising the five medical colleges in Philadelphia, for a "model" center for the breeding and care of laboratory animals.

The organization—a nonprofit corporation—has an option on a 156-acre farm in Honey Brook Township, Chester County, as a site for the center.

Facilities are being planned for the housing and care of laboratory animals acquired through reliable sources, and for breeding particular strains of animals for research.

New Department at Temple

A department of behavioral science has been established at the Temple University School of Medicine.

The new department will provide a means for observing the interplay of enviromental conditions with physical health.

Dr. R. W. Payne, formerly Professor of Psychology at Queen's University, Kingston, Ontario, Canada, has been named professor of psychology and head of the new department.

THERE ARE SMILES—John B. Polansky, M.D., president of the Montgomery County Medical Society, presents the society's 1966 Scholarship Award to Mr. Michael J. Kovac, Jr., while the young man's proud mother looks on. Mr. Kovac will enter the University of Pennsylvania School of Medicine in September.

Temple Names Two

Recently appointed to positions at the Temple University School of Medicine are Carl Alper, Ph.D., and Stanley Schor, Ph.D.

Dr. Alper has been named associate professor of biochemistry in the medical school, and director of the biochemistry laboratories at Temple University Hospital.

Dr. Schor, first professor of biometrics on the medical school's faculty, will be responsible for establishing a program of biostatistics.

Half-Century Honorees

Honored during Hahnemann Medical College commencement ceremonies were the following M.D.'s of the Class of 1916 who have devoted fifty years to service in medicine: Harry P. Metzger and Paul C. Wittman, Philadelphia; Thomas W. Phillips, Media; Thomas H. Powick, Pottstown; Charles A. Rowland, Fort Lauderdale, Florida; and C. Seaver Smith, New Haven, Connecticut.

Intensive Unit at 'Penn'

Construction of a new medical-surgical intensive care unit at the University of Pennsylvania Hospital will be partially financed by earnings of over $53,000 from the fifth annual Antiques Show.

Plans call for two care areas of 16-18 beds each, at a total cost of about $250,000.

Total revenue from the antiques shows has been $213,500. Funds from the first four shows paid for special equipment, air conditioning of wards, and construction and renovation in various hospital areas.

'Jeff'-Lankenau Link

A formal affiliation has been effected between Jefferson Medical College and The Lankenau Hospital.

Jefferson students have since 1949 received some of their medical and surgical training at Lankenau. Under the affiliation, existing medicine and surgery programs will be expanded and additional teaching programs will be instituted—first in obstetrics and gynecology, later in other departments.

- Achieving more "firsts" than any other state in the Union, Pennsylvania has been the scene of the following: the first school of medicine, the first public school system, the first circulating library, the first hospital, the first bank, the first labor union, the first chamber of commerce, the first zoo, and the first world's fair taking place within the United States.

GROUP AT GEISINGER—M.D. participants in a recent postgraduate symposium for physicians, conducted at The Geisinger Medical Center are, from left: William T. Barnes, Danville, John J. Untereker, New York City, Campbell Moses, Pittsburgh, and Harriet Harry, State College.

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Partner or Associate—To two pediatricians, F.A.A.P., in Finger Lakes area. Excellent opportunity; serving area population of approximately 75,000. Excellent churches, schools, and recreational facilities. Two modern hospitals with active pediatric and obstetric departments. Center of boating and fishing area. Contact H. J. Romano, M.D., 22 William Street, Auburn, N. Y. 13021.

PHYSICIANS WANTED

House Physician—For 100-bed community hospital 25 miles from Philadelphia. Five-day week, no nights. Pennsylvania license required. Salary, $300 per week, plus benefits. Contact Mr. C. M. Bogia, The Phoenixville Hospital, Phoenixville, Pa. 19460.

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Emergency Room Duty—From 2 to 10 P.M. daily. Rotating certain weekends. Maximum, 54 hours per week. Pennsylvania license, or eligibility through reciprocity. Salary, $15,000 per annum. Write Administrator, Butler County Memorial Hospital, Butler, Pa. 16001.

House Physician—Full time, for 200-bed hospital. Pennsylvania license required. Salary $15,000 per year, plus maintenance. For details, contact Norman W. Skillman, director, The Chester County Hospital, West Chester, Pa. 19380.

Wanted—Young general practitioner to take over a large general industrial and hospital practice in western Pennsylvania. Excellent assured income. No investment. Must be capable and industrious. Will introduce. Investigation invited. Write Department 479A, Pennsylvania Medicine.

Physician—Staff opening at the Ritenour Health Center of The Pennsylvania State University. Outpatient dispensary, 60-bed hospital, enrollment approximately 20,000. Pleasant rural community in scenic central Pennsylvania. Write H. R. Glenn, M.D., Medical Director, 304P. Old Main Building, University Park, Pa. 16802. An equal opportunity employer.

Radiologist—For community hospital of 82 beds, expanding to 110. Excellent remuneration and fringes. Area recreational facilities include skiing, hunting, fishing, boating, and camping. Located on Pennsylvania Turnpike between Harrisburg and Pittsburgh. Contact Director, Memorial Hospital of Bedford County, Route 1, Everett, Pa. 15537.

House Physician—For 143-bed general hospital located in a residential section about fifteen miles south of Philadelphia. Pennsylvania license required. An excellent introduction to a community with practice opportunities. Contact H. Alan Hume, M.D., Taylor Hospital, Ridley Park, Pa. 19078.

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In My Opinion . . .

Contamination Control: Surgical and Industrial

During the past half-century, surgery usually has been confined to the hospital operating room or operating theater—designed for utmost cleanliness, and involving a minimum risk of patient-contamination by airborne or transfer routes. Originally these rooms were glistening white, so that every mote of dust or drop of blood would show up by contrast. Stringent cleanup methods and careful control of equipment and personnel have made it possible to abandon white for a more soothing pastel green.

At about the time of this color change, industry became aware of the need for cleanliness, largely because World War II and the Korean conflict demonstrated the high cost of unreliability due to contamination. It has been reported that during the Korean War, contamination necessitated the replacement of over one million parts in 160,000 pieces of equipment; radar equipment was inoperative 84 percent of the time; 65-75 percent of the electronic equipment was inoperative at a given time, and the annual maintenance bill exceeded twice the annual procurement cost.

"Clean rooms" resulted, the concept of a "white room" being borrowed from the traditional pristine surgery. In such rooms today, 92-95 percent reliability factors are common; we entrust our astronauts to the products of the "clean room."

Contamination-control techniques have made the aerospace industry possible. Monitoring methods have been devised which count with precision all airborne particles larger than 0.3 microns. Rooms have been designed whose work areas have less than one hundred particles per cubic foot that are larger than one-half micron in diameter. This seems remarkable in light of the fact that a man dressed in special clean-room attire emits 100,000 such particles per minute standing or sitting, immobile. With slight head, hand, and forearm movements, the number rises to 500,000 per minute; changing from a standing to a sitting position causes the man to give off, per minute, 2,500,000 particles larger than one-third micron.

The first device to land upon the moon may have inoculated it with viable pathogenic microorganisms capable of multiplication. Without antagonism, these may so infest the moon that when man lands upon it, his life may be threatened. Space scientists, deeply concerned, are studying microbiologic ecology. They have partially succeeded in translating their control techniques of particulate contamination to a similar control of biologic contamination. Studies suggest that an industrial clean room has far less pathogenic organism contamination than do surgical operating rooms.

With industry thus actively concerning itself with the problem, should we who are interested in the problems of hospital asepsis not "turn the tables"? Industry has used the techniques of surgery to achieve an operational cleanliness which has enabled it to create a *new* industry. Should we study its methods and, if possible, adapt them to the problems of hospital contamination?

New definitions would have to be created, new tools developed, and new monitoring methods evolved. We have won the battle of explosions in operating rooms by reducing the spark hazard and by using fewer flammable anesthetic media. By analagous applications of engineering principles, we may be able to control sepsis.

The desired hospital product is a cured patient—one in whom microbiologic invasion is precluded by the processes of immunity. Such processes the inanimate industrial product does not possess. Possibly the future of industrial contamination control lies in developing self-cleansing processes. Conversely, our patients may in the future benefit by medicine's adaptations of new approaches devised by the engineer.

William C. Beck, M.D., *Sayre.*

P·R·N.

There are things an editor might never know if he didn't read all incoming mail. For example, the following excerpts taken from an Iranian Bulletin received during July.

"Human diseases have been finally conquered. The conceptions of the whole medical world regarding the causes of diseases and the means to be adopted for their cure are erroneous and harmful . . .

"There do not exist any curative substances in the world; there exist only various causes of diseases, by the removal of which all diseases will be automatically eradicated. Those causes are cooked food and the poisons which are misnamed medicines . . .

"Besides ensuring perfect health and long life (from 150 to 200 years), raw-eating frees mankind from all sorts of economic worries, extirpates every type of addiction from the face of the earth, ennobles the soul of man, restrains his beastly inclinations, calms his passions, and imbues him with the spirit of humanitarianism and the love of peace." [Editor's note: All this from simply throwing out the kitchen range!]

"I solemnly declare to the whole world that henceforth the prescription of poisonous medicines and the recommendation of cooked foods are to be regarded as the most heartless crimes against humanity, because they are the factors that cause all human illnesses.

"Kitchen fires should be extinguished in hospitals, the use of drugs should be discontinued, and an end should be put to unnecessary surgical operations. Raw-eating should be accepted as the one and only system of cure all over the world.

"In adopting raw-eating, it is essential to forget all 'scientific' calculations, and to free ourselves from preconceived notions about the 'benefits' to be derived from drugs and cooked food."

Raw-eating Bulletin No. 1, from Arshavir Ter Hovannessian, Place Sanai, 2 Kamkar Avenue, Teheran, Iran.

F.G.M.

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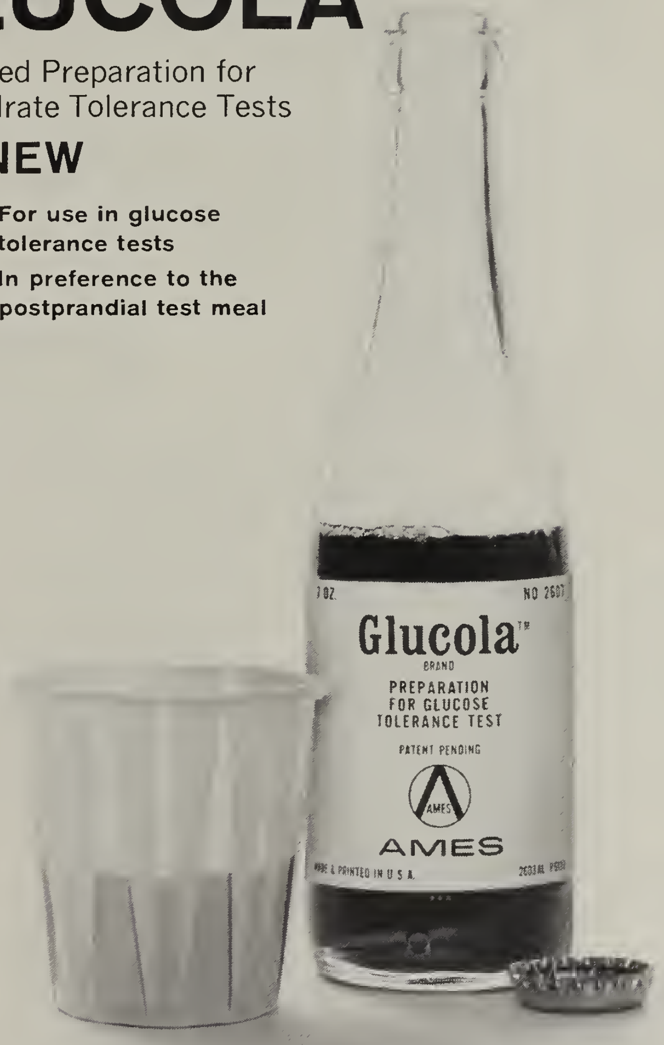

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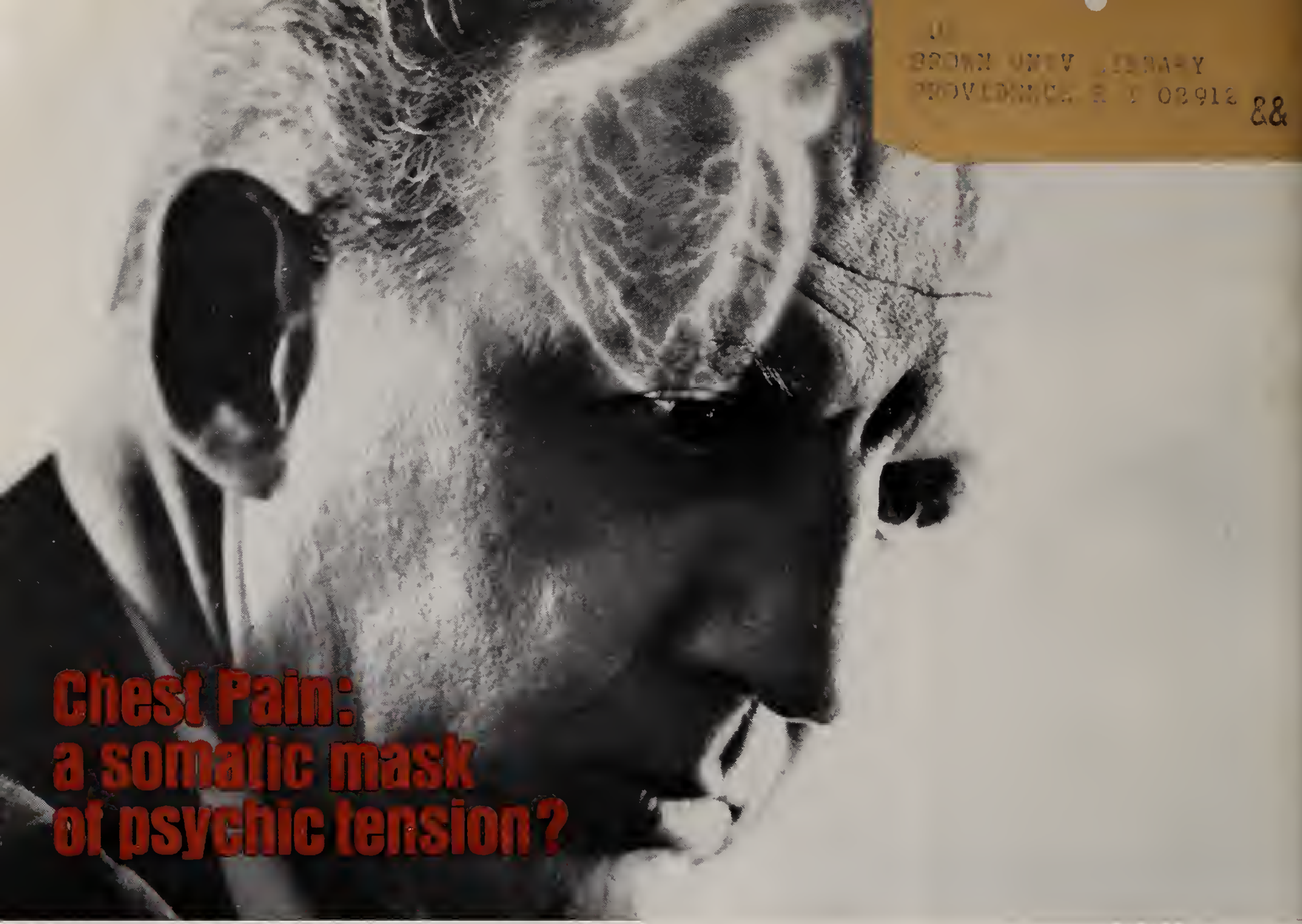

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Convention, 1965

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CARCINOMA OF THE PANCREAS

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CONVENTION PROGRAM, 1966

A new approach in programming, dominated by a "Controversy in the Practice of Medicine" theme, assures Convention success. — Pages 1, 2 and 96-105

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News
HIGHLIGHTS

September, 1966

■ The most important news highlight *this* month concerns an event of major significance scheduled for *next* month: The 1966 Convention!

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NEXT MONTH

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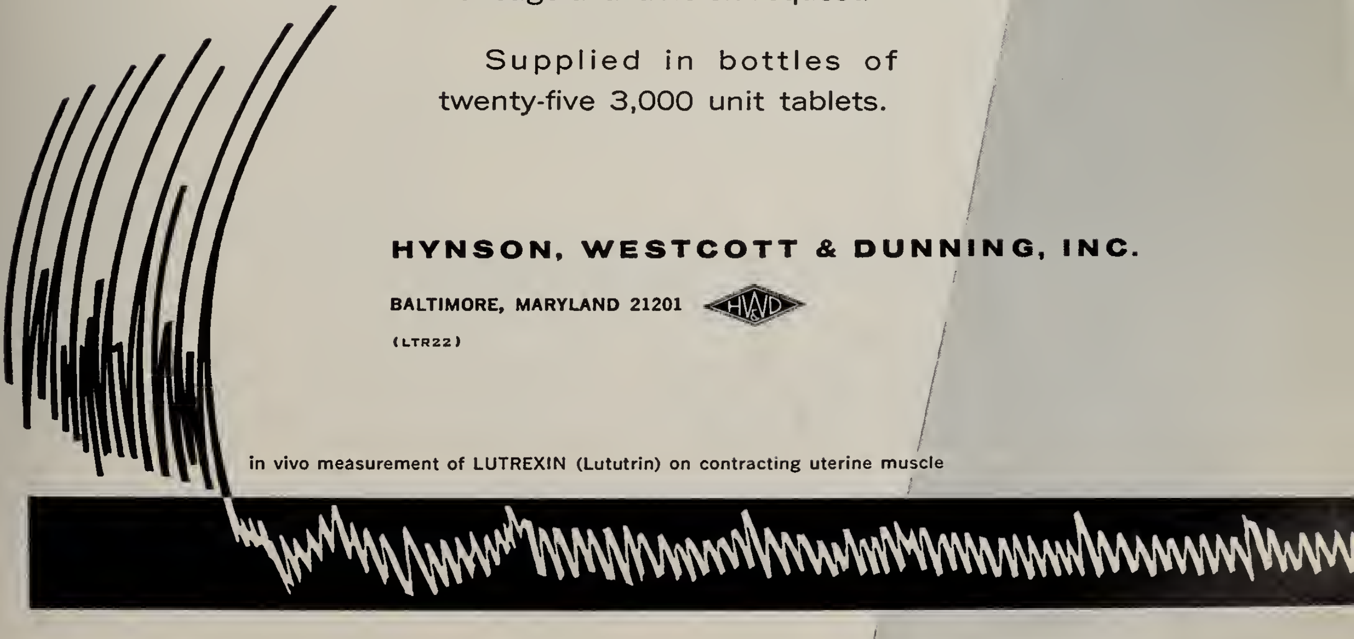

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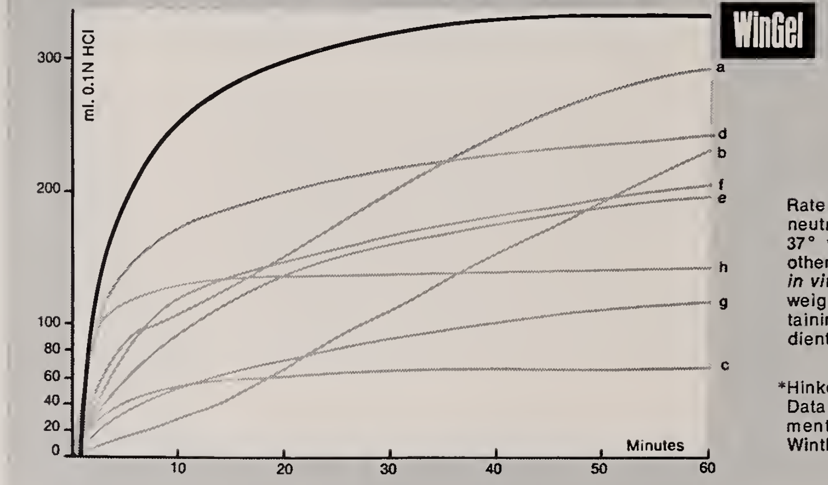

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SEPTEMBER, 1966 VOLUME 69 NUMBER 9

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J. EVERETT McCLENAHAN, M.D.

President-Elect

J. Everett McClenahan, M.D., will be installed as the seventeenth President of the Pennsylvania Medical Society on Wednesday, October 12, 1966. He will succeed William B. West, M.D., of Huntingdon.

Dr. McClenahan, born in Pittsburgh on September 1, 1901, is the son of the late Reverend D. A. McClenahan, a United Presbyterian minister and a Professor at the Pittsburgh Xenia Theological Seminary.

Dr. McClenahan graduated from Muskingum College Ohio, in 1923. He entered the University of Pennsylvania Medical School where he earned his M.D. degree in 1928; later he interned at the Mercy Hospital in Pittsburgh. Following a residency in Medicine, he served a preceptorship in surgery for eight years with the late John P. Griffith, M.D., former Professor of Surgery at the University of Pittsburgh and Chief of Staff at the Mercy Hospital. Dr. McClenahan joined the faculty of the University of Pittsburgh in 1930 as an instructor, and has served constantly on the faculty of the Department of Surgery to the present time, currently holding the position of Associate Clinical Professor of Surgery.

Most of Dr. McClenahan's active surgical life has been in association with the Mercy Hospital, Pittsburgh, where he was Chief of the Department of Surgery from 1960 to 1963. He became Medical Director of the McKeesport Hospital in 1963, and currently holds that position as well as being a member of the hospital's senior surgical staff. He also holds an appointment as a surgical consultant to the Ohio Valley General Hospital.

Dr. McClenahan's interest and long participation in organized medicine extends over many years. He has been a member of the Allegheny County Medical Society and the Pennsylvania Medical Society since 1929; was President of the Allegheny County Medical Society in 1962 and continues to serve on its Board. He is a former President of the Pittsburgh Academy of Medicine, and is the current President of the Pittsurgh Surgical Society. As a member of the American College of Surgeons, he is serving on several of its committees. Dr. McClenahan has served as a Pennsylvania Medical Society District Censor; has been a Society delegate for a number of years, and has served on numerous Society committees.

Dr. McClenahan served as Chairman of the Medical-Legal Committee of the Allegheny County Medical Society and was in large part instrumental in convincing the Federal and Common Pleas Courts of Allegheny County to adopt laws implementing the "Impartial Medical Witness" in those courts. Under his direction, this Committee prepared a book titled IMPARTIAL MEDICAL TESTIMONY, and published it as a "Report of the Allegheny County Medical-Legal Committee." This guide, considered a "must" for those interested in the subject, is now being revised by Dr. McClenahan.

While District Censor, he was charged with the duty of forming Hospital Utilization Committees in the 38 hospitals of the Tenth Councilor District. Along with other members in his local society, he helped found the Hospital Utilization Project and is the Chairman of its Steering Committee. He was instrumental in getting the Hospital Planning Association of Allegheny County to appoint a Medical Advisory Committee and he has acted as Chairman of that Committee from its inception in 1962 until 1966, at which time he was made a full member of the Hospital Planning Board with voting privileges. He has been Chairman of the Medical Advistory Board of the John J. Kane Hospital since 1961. He served a full six-year term on the Board of Health, Research and Services Foundation, and was a member of its Executive Committee. During this period, other affiliations included the Health and Welfare Association and the American Cancer Society's local branch.

Dr. McClenahan and his wife, the former Mary Curran of Pittsburgh, have five children. James E. Jr., a graduate of the University of Pittsburgh, is a 2nd Lieutenant in the Marine Corps and is now on active duty in Vietnam. Mrs. Patricia McClenahan Sabow is a graduate of the Rosemont College and the mother of two children. David is a senior Law Student at Duquesne University in Pittsburgh. Maureen is a graduate of Rosemont College, and Robert, his youngest son, has just graduated from Gilmore Academy and will enter college this fall.

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Hospital Tort Liability

C. GROVE McCOWN, ESQ.,
FOR PEPPER, HAMILTON, AND SCHEETZ, PMS LEGAL COUNSEL
Philadelphia, Pennsylvania

A recent decision handed down by the Supreme Court of Illinois has imposed legal obligations on the hospitals of that state heretofore unheard of in any jurisdiction within the nation: the court said that the hospital must *prevent* gross negligence by its medical personnel or be held liable for wrongful acts perpetrated by such hospital physicians and nurses.

In *Darling vs. Charleston Community Memorial Hospital,* 33 Ill. 2d 327, 211 N.E. 2d 253 (1965), the plaintiff, an eighteen-year-old youth on November 5, 1960, sustained a comminuted fracture of the right tibia and fibula while participating in a college football game. Immediately after the accident occurred, the plaintiff was transported to Charleston Community Memorial Hospital, Charleston, Illinois, where he was treated by a physician who was on emergency call. Assisted by hospital personnel, the doctor set the patient's leg and placed on it an unpadded cast that completely covered it except for the toes.

Shortly after the cast was applied, plaintiff was in great pain, and his toes became swollen and dark-colored, later becoming cold and insensitive. Evidence submitted was replete with references to Darling's excruciating pain. Although the nurses' reports were almost exclusively concerned with allusions to such pain, the only action taken was administration of certain pain-relieving drugs.

The day following the operation, the plaintiff's cast was "notched" around the toes, which by this time had become extensively swollen and blistered. Finally, three days after the cast had been applied, it was removed by means of a Stryker saw, which caused wounds on either side of the leg. According to the court: "Blood and other seepage were observed by the nurses and others, and there was a stench in the room which one witness said was the worst he had smelled since World War II."

Darling remained in Charleston Hospital until November 19, at which time he was transferred to Barnes Hospital, St. Louis, Missouri, where Frederick C. Reynolds, M.D., head of the department of orthopedic surgery, performed several operations in an attempt to save the leg. Dr. Reynolds' efforts did not succeed in reestablishing circulation; ultimately, Darling's leg had to be amputated eight inches below the knee.

There was more than ample expert testimony to establish the fact that leaving an unpadded plaster cast on the patient's leg for several days, under a heat cradle, after repeated complaints of pain and the appearance of signs of swelling and of change of color and temperature of the toes, was grossly negligent. Since the physician had settled out of court, however, the issue in this action was not the liability of the persons who treated the patient, it was the liability of the hospital.

Counsel for the hospital argued, to no avail, that their client (being a corporation) is merely an entity in the eyes of the law, and does not possess the capability of practicing medicine—much less practicing it negligently.

The court unequivocally disagreed with this contention, saying, "The conception that the hospital does not undertake to treat the patient, [and] does not undertake to act through its doctors and nurses, but undertakes instead simply to procure them to act upon their own responsibility, no longer reflects the fact. Present-day hospitals, as their manner of operation plainly demonstrates, do far more than furnish facilities for treatment. They regularly employ, on a salary basis, a large staff of physicians, nurses, and interns, as well as administrative and manual workers, and they charge patients for medical care and treatment, collecting for such services, if necessary, by legal action. Certainly the person who avails himself of hospital facilities expects that the hospital will attempt to cure him, not that its nurses or other employees will act on their own responsibility." [Citation omitted.] "The Standard for Hospital Accreditation, the state licensing regulations, and the defendant's by-laws demonstrate that the medical profession and other responsible authorities regard it as both desirable and feasible that a hospital *assume certain responsibilities* for the care of the patient."

The responsibility that the court refers to is further shown to be that of supervising the professional conduct of the hospital physicians and nurses. While the opinion is magnificently silent on the question of the identity of the persons in the hospital hierarchy who are to carry out this supervisory function, it obviously implies that it could not be the administrative staff, since the nature of the supervision required would necessitate that those "supervising" be learned in the practice of medicine. Such supervision as the holding seems to demand would presumably have to be done by a committee composed of medical staff members. Certainly in any but the best staffed and least active hospitals, it would be almost impossible for a group of physicians to review all medical care given by all doctors, nurses, and other medical personnel on the staff. Such supervisory physicians surely would not have enough time remaining to practice medicine themselves.

What are this case's implications in Pennsylvania, and what ought to be done in the hospitals of the commonwealth to forestall any possibility of tort liability predicted on reasoning analogous to that of the *Darling* case? Although this case has no binding precedential value in the courts of Pennsylvania, certainly the reasoning of a sister state's highest court will have repercussions on the already expanding area of the law in hospital tort liability (see PENNSYLVANIA MEDICINE, April, 1966, page 62, *Hospitals' Loss of Charitable Immunity . . .*).

It is difficult to determine exactly what factual aspect of this action was most crucial in leading the court to its decision. Just as when a doctor treats a patient's syndrome, so when an attorney reads a court opinion it is imperative that he attempt to "treat" the most direct causes of the potential danger, and yet not ignore the dicta nor what may at the time appear to be the more remote grounds on which the decision was based.

The jury charge of the trial court in this case was found to be supportable on either of the alternative grounds which appellant contended were in error: (1) that the nurses failed to bring the progressive gangrenous condition to the attention of the hospital administration or of the medical staff, and (2) that the hospital failed to require consultation or examination by members of the surgical staff skilled in such procedure, and that there was not a panel of hospital personnel to review the actions of the negligent doctor.

The first item of advice to a hospital—not necessarily prophylactic in nature, but designed to protect the hospital against the vicissitudes of such liability—is to carry "adequate or more" insurance. Since a major buttress of this court's reasoning was that the hospital did not live up to its standards of accreditation, hospital administrators would be well advised not only to review, but also to endeavor to fulfill, *all* regulations and procedures imposed by the hospital's by-laws and by the state's regulations and standards of accreditation.

Hospital authorities should further encourage their medical staff persons to keep abreast of the changing aspects of medicine, and should not only attempt to cultivate a substantial amount of consultation between specialists and general practitioners, but should require that in serious cases a specialist always be called in to review the work of a practitioner or surgeon not markedly knowledgeable in the field in which he is working. It is imperative also that in every case, records be kept of the patient's medication and treatment of the consultations made, and of whatever else may be relevant to a later inquiry. In short, the doctor and the hospital should treat every case as a potential lawsuit —especially since the hospitals may in the future be held to a standard of care requiring them to review the physician's treatment procedures, as is now the case in Illinois; without adequate records, the question as to whether or not the hospital adequately "reviewed" the procedure would be as good as decided against them.

What are the implications of this case as regards individual physicians and surgeons? Will they be less sought after by angry plaintiffs, or will they be forced into court with increasing frequency? Will a doctor's freedom of action be impaired, at least while he is within the confines of a hospital?

One school of thought maintains that when a patient feels he has been aggrieved in some recompensible manner, he prefers to bring his wrath to bear on a "faceless institution" rather than on a medical doctor who, after the lawsuit ends, may remain an associate or a neighbor. There is also the pragmatic consideration that jurors are more inclined to bring a verdict (or a higher verdict) against an institution, which to them appears to have unlimited capital, and whose reputation and "professional honor" would not be so seriously jeopardized by an adverse judgment as would a physician's.

Another responsible school of thought, however, sees the repercussions of this case as adding dilemmas to the already law-fraught life of the average practitioner, a view supportable from the ostensible reasoning of the justices in the *Darling* case. Post-*Darling,* it would seem that the new approach—at least in Illinois—would be to file a joint suit against the doctor *and* the hospital. The hospital would not be held liable for a patient's injuries unless it had been negligent in allowing the doctor's or nurse's negligence to continue to the point where it became the proximate cause of the plaintiff's punitive injuries. In essence, since a hospital's negligence is only predicated on allowing negligence on the part of its medical personnel, a plaintiff's attorney would be extremely hesitant to sue a hospital without joining the physician who treated the plaintiff. Also, there is the distinct likelihood that hospitals being sued on the grounds espoused by Darling will have the doctors joined as third-party defendants.

This author believes that as a result of this decision, physicians will with increasing frequency come in contact with the processes of justice.

A doctor's practice might be affected in other ways in a jurisdiction in which *Darling* applies, or will possibly apply in the future: there is a strong intimation—at least in cases of "gross" negligence—that not only the hospital but also the nurses may be held legally responsible for "second-guessing" the doctor's treatment procedures. The opinion refers to the fact that a "skilled nurse would have promptly recognized the conditions that signaled a dangerous impairment of circulation," and that at that point "it becomes the nurse's duty to inform the attending physician, and, if he failed to act, to advise the hospital authorities so that appropriate action might be taken." This language may well herald an era in which a doctor will with increasing frequency be called upon to justify, to his nurse, his prescription of medications to be used.

This case has been said to represent the ancient adage that "hard cases make bad law." By attempting to meet, in Pennsylvania, the standards imposed upon hospitals in Illinois, great protection will be afforded, by assurance from those responsible for hospital standards that such gross negligence does not arise in this commonwealth so as to lay the "hard case" fact foundation for the ensuing "bad law."

Renal Artery Disease

Various types of obstructions may cause renovascular hypertension: an arteriosclerotic intimal plaque, fibrous dysplasias, arteriosclerosacular aneurysms, emboli, and trauma with clot formation in the renal artery.

The elevated blood pressure may result in arteriolosclerosis, but still may respond to surgical correction. Response to surgery may at times be good even if only a slight change occurs in the excretion rates of water and sodium, as determined by a split-function study.

Clinical indications for surgical therapy, as well as specific techniques, are reviewed. Surgical procedures to revascularize the kidney are preferable to nephrectomy. Partial nephrectomy may be necessary when there is evidence of segmental renal artery disease.

The best results are obtained in patients who have had hypertension for less than two years.

EUGENE F. POUTASSE, M.D.,
Albert Einstein Medical Center
Symposium on Vascular Disease.

M.D.'s in The News

Lewis W. Bluemle, Jr., M.D., Philadelphia, is a new associate dean of the University of Pennsylvania School of Medicine.

Charles O. Rixey, M.D., formerly of San Antonio, Texas, is a new associate in The Geisinger Medical Center department of ophthalmology. Dr. Rixey has since 1945 been engaged in medical work for the Armed Forces of the United States, serving at Walter Reed General Hospital, Washington, D.C., Letterman General Hospital, San Francisco, the U. S. Army Hospital in Bad Cannstat, Germany, and Brooke General Army Hospital, San Antonio.

DR. RIXEY

Wendell B. Gordon, M.D., Pittsburgh, received an honorary Doctor of Science degree from his undergraduate alma mater, Allegheny College, Meadville. Dr. Gordon is president of the American Society of Internal Medicine.

Coming to Philadelphia from the Mayo Graduate School of Medicine, University of Minnesota at Rochester, are the following M.D.'s: **William M. Birtwell, Jr., Randolph C. Blodgett, Jr., Joan M. B. Cracco, Norman L. Ekberg,** and **John C. May.**

Bernard L. Segal, M.D., Philadelphia, devoted the period from July 22 to August 27 to a lecture tour comprising Istanbul, Jerusalem, Tel Aviv, Budapest, and London.

George J. D'Angelo, M.D., Erie, is the new president of the Northwestern Pennsylvania Heart Association. **John N. Rees, M.D.,** Ambridge, was named to the executive committee.

Albert M. Bertsch, M.D., Montrose, has been elected a director of the Pennsylvania Division of the American Cancer Society, to serve for two years.

Named 1966-67 president of the Northcentral Pennsylvania Heart Association is **Ralph B. Winston, M.D.,** Athens, who also is president of the Bradford County Medical Society.

Francis C. Jackson, M.D., Pittsburgh, received the Billings Gold Medal at the AMA Convention in June. The award is given for the most outstanding scientific and teaching exhibit, correlating available information on a subject, presented at each year's AMA session.

Victor B. Slotnick, M.D., Philadelphia, has been appointed assistant director of clinical investigation in the medical division of McNeil Laboratories, Inc., Fort Washington. Dr. Slotnick has for the past year been an intern at the Albert Einstein Medical Center.

Richard P. Zimmerman, M.D., Johnstown, for the second consecutive term is president of the Cambria County Unit, American Cancer Society.

William I. Gefter, M.D., Philadelphia, has been appointed director of the department of medicine at Episcopal Hospital, and professor of medicine at the Temple University School of Medicine. Since 1939, Dr. Gefter has been associated with Philadelphia General Hospital. At Woman's Medical College, he has been a faculty member since 1943, being appointed William J. Mullen Professor of Medicine there in 1959. Since 1953 he has been consultant in medicine at the Veterans Administration Hospital. One of his many scientific publications is a new textbook, *Synopsis of Cardiology,* of which he is a co-author.

DR. GEFTER

Newly-elected officers of the Temple University School of Medicine Alumni Association are: president, **Albert J. Finestone, M.D.,** Elkins Park; president-elect, **Joseph M. Garfunkel, M.D.,** Mt. Airy; first vice-president, **G. Raymond Brown, M.D.,** Cape May Court House, New Jersey; secretary, **Walter J. Levinsky, M.D.,** Penn Valley; and treasurer, **Gennaro C. Nicastro, M.D.,** Philadelphia. The immediate past president is **Fletcher D. Sain, M.D.,** Abington.

William J. Pommersheim, M.D., New Castle, has been elected president of the newly-formed Midwestern Pennsylvania Heart Association.

Mayer A. Green, M.D., Pittsburgh, was reelected chairman of the allergy committee of the American College of Chest Physicians. Dr. Green presided at the ACCP symposium on "Status Asthmaticus," and at an AMA convention fireside conference on "Corticosteroids in Asthma."

Joseph S. Gonnella M.D., formerly of Chicago, has been named an assistant dean at Hahnemann Medical College. He will also be an assistant professor of medicine in the department of medicine.

Stanley C. Clader, M.D., Bryn Mawr, is 1966-67 president of the staff of Bryn Mawr Hospital, succeeding **William C. Stainback, M.D.,** also of Bryn Mawr.

Elmer G. Shelley, M.D., North East, was elected chariman of the AMA Judicial Council at the organizations's convention in Chicago in late June. Named vice-speaker of the AMA House of Delegates was **Russell B. Roth, M.D.,** Erie.

Herbert R. Domke, M.D., Allegheny County Health Director for the past seven years, has accepted a similar position in St. Louis, Missouri.

Alfred H. Griess, M.D., athletic team physician for The Pennsylvania State University, and his wife, Phyllis R. Griess, Ph.D., professor of geography, have retired with emeritus rank after serving the university since 1939 and 1940, respectively.

Stanton Segal, M.D., formerly of Bethesda, Maryland, recently became senior physician at Children's Hospital of Philadelphia and professor of pediatrics in the University of Pennsylvania School of Medicine.

Paul H. Maurer, M.D., formerly of Jersey City, New Jersey, has been appointed a professor of biochemistry and head of the department at Jefferson Medical College, succeeding **Abraham Cantarow, M.D.,** who has retired. Dr. Maurer belongs to fourteen professional organizations, is on the editorial board of *Immunochemistry,* and has written more than one hundred scientific articles. This past summer, he lectured in Moscow, Oslo, Rehovoth (Israel), Munich, and Paris.

DR. MAURER

Postgraduate Courses

ALLENTOWN

Pathology Seminars, Temple University department of pathology, and Lehigh AAGP, at Allentown Hospital, Mondays, September–June, 7:30 P.M.; 20 hours AAGP. Contact Allentown Hospital Association, Seventeenth and Chew Streets (18102).

At Allentown Hospital, 10 A.M.–1 P.M. on dates specified; each 3 hours AAGP:

Evaluation of the Patient with Headache,* September 8.

The Use of Liver Function Tests,* October 13.

Biliary Colic,* November 10.

Edema as a Symptom,* December 8.

BETHLEHEM

At St. Luke's Hospital, 8:30 A.M.–12 M. on dates specified; fee, each course, $7.00; AAGP credit, each course, 3 hours:*

Fluid and Electrolytes: (1) **Disorder of Acid-Base Equilibrium,** September 15; (2) **Discussion of Body-Fluid Volume, Basic Considerations and Definitions,** October 20; (3) **Fluid and Electrolytes Disorders in the Surgical Patient,** November 17; (4) **Review of Fluid and Volume Problems and Acid-Base Disorders,** December 15.

CAMP HILL

Medical Management of Patients in Long-Term Care Facilities, PAGP, PMS, Pennsylvania Association of Nursing and Convalescent Homes, at Penn Harris Motor Inn, September 25, 10 A.M.; 5 hours AAGP. Contact T. C. Kalkhof, M.D., P.O. Box 806, Erie 16512.

CHAMPION

Continuing Medical Education Seminar,* in cooperation with Conemaugh Valley Memorial Hospital, Johnstown; at Seven Springs Mountain Resort, November 10–12; fee, $8.00; 16 hours AAGP.

DREXEL HILL

Symposium on Blunt Trauma, Delaware County AGP, at Delaware County Memorial Hospital, October 29, 9 A.M.–4 P.M.; 6 hours AAGP. Contact E. D. Arsht, M.D., at the hospital, Lansdowne and Keystone Avenues (19026).

HARRISBURG

Medical Lectures, Harrisburg Polyclinic Hospital and University of Pennsylvania School of Medicine, at Polyclinic, October 25, November 22, February 28, March 28, and April 25, 10 A.M.–1 P.M.; 5 hours AAGP. Contact G. F. Zerbe, M.D., 1822 Market Street, Camp Hill 17011.

HAZLETON

Continuing Education Program, by The University of Pennsylvania School of Medicine, at Hazleton State General Hospital Nursing Home, Second and Third Streets, Thursdays, through December 8 (course under way). Contact V. J. Kennedy, M.D., at the hospital (18201).

PHILADELPHIA

The Elder Patient: Clinical Features and Total Management, Joseph T. Freeman, M.D., chairman, PMS Commission on Chronic Illness and Geriatrics; at Lankenau Hospital, September 14, 21, and 28, 9:30 A.M.–5 P.M.; 18 hours AAGP. Contact Dr. Freeman, 1530 Locust Street (19102).

Microsurgery of the Temporal Bone, Temple University School of Medicine, first week of each month. Contact B. J. Ronis, M.D., Temple University School of Medicine, Broad and Ontario Streets (19140).

Advanced Seminar in Adult Office Psychiatry, Temple University Health Sciences Center, Wednesdays, October 26–January 4, 10 A.M.–1 P.M.; 30 hours AAGP. Contact H. K. Fischer, M.D., 3401 North Broad Street (19140).

Psychiatry, 1966, for the General Practitioner, Temple University Health Sciences Center, at Marriott Motor Hotel, November 5–6, 9 A.M.–4 P.M.; 10 hours AAGP. Contact R. B. Sloane, M.D., 3401 North Broad Street (19140).

Theory and Application of Gas Chromatography in Industry and Medicine, Hahnemann Medical College and Hospital, at Marriott Motor Hotel, October 26–28.

Medical Hypnosis for Graduate Physicians, Department of Psychiatry, Graduate Division, School of Medicine, University of Pennsylvania; at the Institute of the Pennsylvania Hospital, Wednesdays, 3–7 P.M., September 28 through February 22; AAGP accreditation; fee, $150. Contact S. E. Pulver, M.D., director, 111 North Forty-ninth Street (19139).

Applied Office Psychiatry for Graduate Physicians, at the Institute of the Pennsylvania Hospital, Wednesdays, 3–7 P.M., September 28 through December 21; AAGP accreditation; fee, $50. Contact Dr. Pulver, as above.

Office Psychiatry, Institute of the Pennsylvania Hospital, 4 hours each Thursday for 12 weeks, beginning September 28. Contact Dr. Pulver, as above.

Annual Course in Postgraduate Gastroenterology, American College of Gastroenterology, at Bellevue Stratford, with a session on instrument techniques at Albert Einstein Medical Center, Northern Division; course period—October 27–29. For further information, contact the ACG, 33 West Sixtieth Street, New York 10023.

Seventeenth Hahnemann Symposium, Nutritional Dysfunction, at Sheraton Hotel, in December. Donald Berkowitz, M.D., director.

General Internal Medicine, Hahnemann Medical College and Hospital, Wednesdays, October 5, 1966–March 29, 1967, 1–4 P.M.; 24 hours AAGP. Contact Drs. D. Mason, W. W. Oaks, and S. R. Bender, 230 North Broad Street (19102).

Bronchoesophagology, Drs. Charles M. Norris and Gabriel F. Tucker, Jr., November 28–December 9, 1966, and April 3–14, 1967; fee, $250. Contact Chevalier Jackson Clinic, Temple University Hospital, 3401 North Broad Street (19140).

Renal Failure, Hahnemann Medical College, at Sheraton Hotel, December 12–14, 9 A.M.–5 P.M. daily; 24 hours AAGP. Contact Albert N. Brest, M.D., 230 North Broad Street (19102).

Psychiatry and Clinical Medicine for Nonpsychiatrists, University of Pennsylvania Department of Psychiatry, 2:30 P.M.–5 P.M. Wednesdays, for 20 weeks, starting September 28; fee, $75. Contact W. L. Webb, M.D., Hospital of the University of Pennsylvania, Thirty-fourth and Spruce Streets (19104).

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* These courses sponsored by Jefferson Medical College and The Pennsylvania State University. For further course information, contact J. H. Killough, M.D., 1025 Walnut Street, Philadelphia 19107.

Rational Therapy and Control of Tuberculosis, Hahnemann Medical College and Pennsylvania Tuberculosis and Health Association, at Henry R. Landis State Hospital, Philadelphia, October 3–5; 23 hours AAGP. Contact W. S. Blumenthal, M.D., Hahnemann Medical College, 230 North Broad Street (19140).

Recent Advances in Medicine, Temple University Hospital, Wednesdays, October 26 through December 14, 11 A.M.–4 P.M.; fee, $50. Contact A. J. Finestone, M.D., Temple University Medical Center (19140).

Applied Office Psychiatry and Psychosomatic Medicine, departments of psychiatry, internal medicine, obstetrics-gynecology, and pediatrics, Temple University Medical Center, at Temple University Sciences Center, Wednesdays, October 5 through February 22, 10 A.M.–3 P.M.; 80 hours AAGP. Contact H. K. Fischer, M.D., 3401 North Broad Street (19102).

What's New in Infectious Disease Prevention and Immunization, Jefferson Medical College and Pennsylvania State University, at Jefferson's McClellan Hall, September 28–30; 18 hours AAGP; no fee; supported by Foundation for Community Health (Philadelphia). Contact J. H. Killough, M.D., 1025 Walnut Street (19107).

Marriage, Family, and Sexual Problems in Medical Practice, University of Pennsylvania School of Medicine, at Warwick Hotel, October 19, 9:30 A.M.–4:30 P.M.; 6 hours AAGP. Contact Martin Goldberg, M.D., 111 North Forty-ninth Street (19139).

At Albert Einstein Medical Center, York and Tabor Roads:

Neurology, Wednesdays, 2–4 P.M. September 14–November 2; 16 hours AAGP.

Dermatology for the General Practitioner, Thursdays, 1–3:30 P.M., September 22–December 1; 25 hours AAGP.

Clinical Allergy, Thursdays, 2–5 P.M., September 20–December 22.

Gastroenterology, Wednesdays, 2–5 P.M., September 21–December 14; 36 hours AAGP.

Basic Electrocardiography, Wednesdays, 1–4 P.M., October 12–February 1; 45 hours AAGP.

PITTSBURGH

Seminars in Psychological Aspects of Medical Practice, University of Pittsburgh School of Medicine (Staunton Clinic), beginning Wednesday *or* Thursday September 21 *or* 22, 10 A.M. –12 M., and continuing for 13 weeks; fee, $65; 26 hours AAGP. Contact R. A. Pittenger, M.D., 3601 Fifth Avenue (15213); telephone 1-412-683-1620, Extension 681.

Seminars on Psychological Aspects of Medical Practice, University of Pittsburgh School of Medicine, at Staunton Clinic, September 21, 22, and December 14, 22, 10 A.M.–12 M. Contact R. A. Pittenger, M.D., 3601 Fifth Avenue (15213).

POTTSVILLE

The More Common Diseases of the Adrenals, Jefferson Medical College and The Pennsylvania State University, at Pottsville Hospital School of Nursing, September 8, 11:30 A.M.–2 P.M.; 2 hours AAGP. Contact J. H. Killough, M.D., 1025 Walnut Street, Philadelphia 19107.

Endocrine Aspects of Non-Endocrine Tumors, Jefferson Medical College and The Pennsylvania State University, at Pottsville Hospital School of Nursing, October 13, 11:30 A.M.–2 P.M.; 2 hours AAGP. Contact Dr. Killough, as above.

At Pottsville Hospital, 11:30 A.M.–2 P.M. on dates specified; each 2 hours AAGP:

Fertility Control,* November 10.

Problems of the Menopause,* December 8.

READING

Liver Diseases and Miscellaneous Subjects, Hahnemann Medical College, at Community General Hospital, Wednesdays, September through May, 9:30 A.M. Contact E. L. Trexler, M.D., 15 South Franklin Street, Fleetwood 19522.

WILKES-BARRE

At Wilkes-Barre General Hospital, 8 A.M.–12 M. on dates specified; each 3 hours AAGP:

Endocrine Problems of Adolescence,* September 22.

Dermatologic Manifestations of Systemic Diseases,* October 20.

Endocrine Aspects of Non-Endocrine Tumors,* December 15.

WILLIAMSPORT

At Williamsport Hospital, 10 A.M.–3 P.M. on dates specified; each 4 hours AAGP:

The Coronary Care Unit,* September 21.

Evaluation of Congenital-Developmental Orthopedic Defects,* October 19.

Pain: Psyche, Soma, and Drugs,* November 16.

Ocular and Neurological Manifestations of Systemic Disease,* December 21.

YORK

At York Hospital, 8 A.M.–12 M. on dates specified; fee, each course, $8.00; AAGP credit, each course, 3 hours:*

Short Course in Psychiatry in the Medical Office, Part I, September 22; Part II, September 29.

Modern Concepts of Pathophysiology and Treatment in Collagen Diseases, October 6.

Diagnosis of Congenital and Acquired Valvular Disease, October 13.

Immunity and Its Mechanisms in Producing Disease, October 20.

Readily Available Tests of Adrenal Function, October 27.

The Management of the Pulmonary Cripple During Surgery, November 3.

Digitalis and Quinidine—Who, Why, How, and When? November 10.

The Diagnosis of Renovascular Hypertension, November 17.

Problems of Surgery in Children, December 1.

Neoplasms of the Uterus and Ovary, December 8.

Current Considerations in the Management of Vaginitis and Vulvar Disease, December, 15.

• **About This Section:** To be publicized, courses must be one-half day (three hours) or more in length, designed for licensed doctors of medicine, and of interest to physicians in an area of several counties or more. Information must be received by the first day of each month, to appear the following month. Each item will appear no more than four times. Address: Commission on Medical Education, 230 State Street, Harrisburg 17105.

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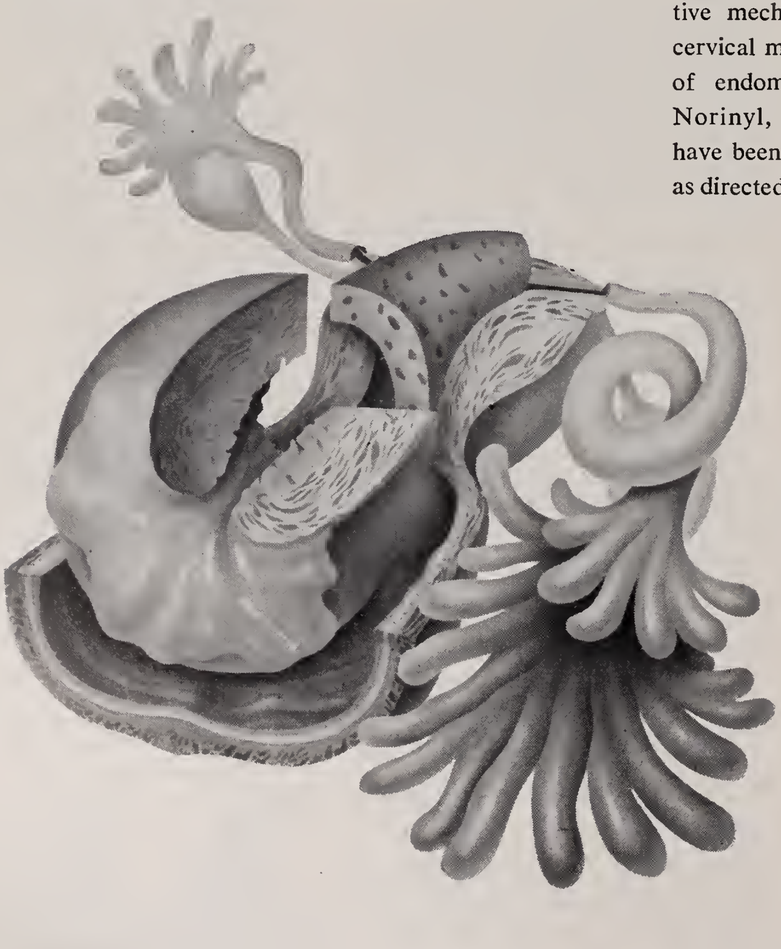

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Norinyl provides multiple action for maximum assurance of success. It does not depend on ovulation inhibition alone for contraceptive effectiveness. The mechanism of action of combined hormonal therapy results in ovulation inhibition reinforced by other protective mechanisms, including a hostile cervical mucus[1-13] and an acceleration of endometrial changes.[1-3,7-16] With Norinyl, no unplanned pregnancies have been reported to date when used as directed.

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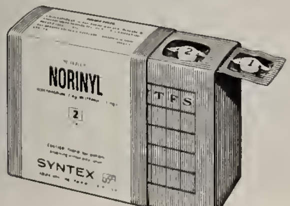

Contraindications: Thrombophlebitis or pulmonary embolism (current or past). Existing evidence does not support a causal relationship between use of Norinyl and development of thromboembolism. While a study which was conducted does not resolve definitively the possible etiologic relationship between progestational agents and intravascular clotting, it tends to confirm the findings of the Ad Hoc Advisory Committee appointed by the Food and Drug Administration to review this possibility. Cardiac, renal or hepatic dysfunction. Carcinoma of the breast or genital tract. Patients with a history of psychic depression should be carefully studied and the drug discontinued if depression recurs to marked degree. Patients with a history of cerebral vascular accident.

Warning: Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn.

Precautions: By May 1963, experience with norethindrone 2 mg.—mestranol 0.1 mg. had extended over 24 months. Through miscalculation, omission or error in taking the recommended dosage of Norinyl, pregnancy may result. If regular menses fail to appear and treatment schedule has not been adhered to, or if patient misses two menstrual periods, possibility of pregnancy should be resolved before resuming Norinyl. If pregnancy is established, Norinyl should be discontinued during period of gestation since virilization of the female fetus has been reported with oral use of progestational agents or estrogen. When lactation is desired, withhold Norinyl until nursing needs are established. Existing uterine fibroids may increase in size. In metabolic or endocrine disorders, careful clinical preevaluation is indicated. A few patients without evidence of hyperthyroidism had elevated serum protein-bound iodine levels, which in the light of present knowledge, does not necessarily imply hyperthyroidism. Protein-bound iodine increased following estrogen administration. Bromsulphalein retention has occurred in up to 25% of patients without evidence of hepatic dysfunction. Studies from 24-hour urine collections have shown an increase in aldosterone and 17-ketosteroids and decrease in 17-hydroxycorticoid levels. Thus, Norinyl should be discontinued prior to and during thyroid, liver or adrenal function tests. Because progestational agents may cause fluid retention, conditions such as epilepsy, migraine and asthma require careful observation. Thus far no deleterious effect on pituitary, ovarian or adrenal function has been noted; however, long-range possible effect on these and other organs must await more prolonged observation. Norinyl should be used with caution in patients with bone, renal or any disease involving calcium or phosphorus metabolism.

Side Effects: Intermenstrual bleeding; amenorrhea; symptoms resembling early pregnancy, such as nausea, breast engorgement or enlargement, chloasma and minor degree of fluid retention (if these should occur and patient has not strictly adhered to medication plan, she should be tested for pregnancy); weight gain; subjective complaints such as headache, dizziness, nervousness, irritability; in a few patients libido was increased. In a total of 3,090 patients, 2.2% discontinued medication because of nausea.

NOTE: See sections on contraindications and precautions for possible side effects on other organ systems.

Dosage and Administration: One Norinyl tablet orally for 20 days, commencing on day 5 through and including day 24 of the menstrual cycle. (Day 1 is the first day of menstrual bleeding.)

Availability: Dispensers of 20 and 60 tablets; bottles of 100.

References: **1.** Council on Drugs. JAMA 187:664 (Feb. 29) 1964. **2.** Bryans, F. E.: Canad Med Ass J 92:287 (Feb. 6) 1965. **3.** Goldzieher, J. W.: Med Clin N Amer 48:529 (Mar.) 1964. **4.** Cohen, M. R.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965. **5.** Hammond, D. O.: Ibid. **6.** Rice-Wray, E., Goldzieher, J. W., and Aranda-Rosell, A.: Fertil Steril 14:402 (Jul.-Aug.) 1963. **7.** Goldzieher, J. W., Moses, L. E., and Ellis, L. T.: JAMA 180:359 (May 5) 1962. **8.** Kempers, R. D.: GP 29:88 (Jan.) 1964. **9.** Tyler, E. T.: JAMA 187:562 (Feb. 22) 1964. **10.** Rudel, H. W., Martinez-Manautou, J., and Maqueo-Topete, M : Fertil Steril 16:158 (Mar.-Apr.) 1965. **11.** Flowers, C. E., Jr.: N Carolina Med J 25:139 (Apr.) 1964. **12.** Goldzieher, J. W.: Appl Ther 6:503 (June) 1964. **13.** The Control of Fertility. Report adopted by the Committee on Human Reproduction of the American Medical Association. JAMA 194:462 (Oct. 25) 1965. **14.** Flowers, C. E., Jr.: JAMA 188:1115 (June 29) 1964. **15.** Merritt, R. I.: Appl Ther 6:427 (May) 1964. **16.** Newland, D. O.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965.

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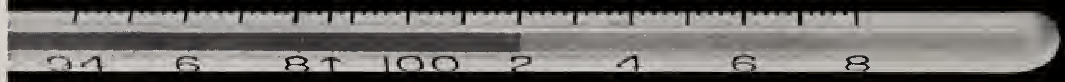

two to four times
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activity of other
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CONTRAINDICATIONS: Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with preexisting liver disease or dysfunction.

SIDE-EFFECTS: Even though Ilosone is the most active oral form of erythromycin, the incidence of side-effects is low. Infrequent cases of drug idiosyncrasy, manifested by a form of intrahepatic cholestatic jaundice, have been reported. There have been no known fatal or definite residual effects. Gastro-intestinal disturbances not associated with hepatic effects are observed in a small proportion of patients as a result of a local stimulating action of Ilosone on the alimentary tract. Although allergic manifestations are uncommon with the use of erythromycin, there have been occasional reports of urticaria, skin eruptions, and, on rare occasions, anaphylaxis.

DOSAGE: *Children under 25 pounds*—5 mg. per pound of body weight every six hours. *Children 25 to 50 pounds*—125 mg. every six hours. *Adults and children over 50 pounds*—250 mg. every six hours. For severe infections, these dosages may be doubled.

Available in Pulvules®, suspension, drops, and chewable tablets. Ilosone Chewable tablets should be chewed or crushed and swallowed with water.

Additional information available to physicians upon request.
Eli Lilly and Company, Indianapolis, Indiana 46206.

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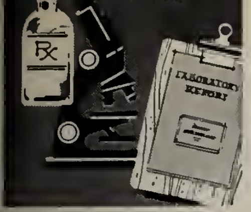

ORIGINAL PAPERS

Remission of Carcinoma of the Pancreas

After a course of 5-fluorouracil, no biochemical or clinical signs of neoplasm were seen, and in three years there has been no recurrence

DRS. MOHAMED A. MOBARAK, JEROME I. BRODY,
SHELDON A. LISKER, AND LAWRENCE H. BEIZER
Philadelphia, Pennsylvania

This report describes a patient with metastatic carcinoma of the pancreas in whom an unusually prolonged remission was induced with 5-fluorouracil. Biochemical and clinical evidence of the histopathologically diagnosed tumor disappeared completely during administration of this antimetabolite, and the patient remains in apparent good health three years after the inition of chemotherapy. This response indicates the applicability of this form of treatment in far advanced cancer, the necessity for appraising the prognosis of each patient individually, and emphasizes the unpredictable nature of malignant tumors.

A seventy-seven-year-old man was admitted to the University of Pennsylvania Graduate Hospital in February, 1963, because of midepigastric pain, diarrhea, and jaundice. The symptom complex began four months prior to entering the hospital with nonradiating pain unassociated with vomiting, but relieved by eating. Two months later, there was a significant change in bowel habits characterized by the passage of two to four malodorous liquid stools daily. In addition, shortly before seeking medical attention, the patient sustained a weight loss of ten pounds, and noted the onset of scleral icterus and choluria.

There was no prior personal history of metabolic, hematopoietic, renal, hepatic, or cardiovascular disease, but a squamous cell carcinoma of the dorsum of the right hand had been removed in 1952; this tumor has not recurred. Both parents died at the age of eighty years, the mother of heart failure, the father of an unknown cause.

When he entered the hospital the patient's vital signs were normal. The sclerae were markedly icteric. Petechiae were not seen on the nasal or oral mucosae, and cervical adenopathy was not detected. The lungs were clear to palpation, percussion, and auscultation. The cardiac rhythm was regular, and no adventitious sounds were heard. Abdominal tenderness and ascites were absent. A smooth, nontender liver was felt 4 cm. below the right costal margin, but the spleen was not palpably enlarged.

The initial laboratory findings were as follows: the complete blood count, blood urea nitrogen (BUN), uric acid, serum electrolytes, cholesterol, serum amylase and lipase were all within normal limits. Bile was present in the urine. A 3-hour glucose tolerance test produced a response similar to that observed in diabetes mellitus. The total serum bilirubin was 12 mg. percent, of which 9 mg. percent was in the direct-reacting fraction. The alkaline phosphatase was 9.4 sigma units, the serum glutamic oxaloacetic transaminase (SGOT), 180 units, the Quick prothrombin time was prolonged by 1 second, and the serum protein electrophoresis was normal.

Roentgenographic examination of the gastrointestinal tract with contrast media revealed moderate widening of the duodenal loop, with distortion of its contour and extrinsic pressure on the inferior surface of the gastric antrum. These changes were interpreted to be consistent with the presence of a pancreatic mass. Subsequently, a secretin test was performed, during which a small amount of sanguinous duodenal fluid was aspirated. This material contained malignant cells when examined by the Papanicolaou technic (Fig. 1).

On March 11, 1963, an exploratory laparotomy was done. At surgery the liver appeared nodular, but the cause for this irregularity could not be determined by inspection or palpation. Regrettably, a wedge rather than a needle biopsy of the liver was taken which showed only cholestasis. Possibly this type of biopsy inadvertently failed to include tumor. A 4 cm., hard mass was felt in the head of the pancreas. Generalized lymphadenopathy was not seen, but a palpable lymph node at the junction of the common bile duct and the duodenum was resected and sent to the laboratory for histologic examination. Metastatic carcinoma (Fig. 2) was discovered in the node. Other viscera directly adjacent to the pancreas and apart from it were unremarkable.

Particular attention was given to the gall bladder and the visible portions

■ **The authors are all associated with the University of Pennsylvania School of Medicine. Drs. Mobarak and Lisker are postdoctoral research fellows in Hematology. Dr. Brody is an associate professor of medicine, and recipient of USPHS Career Development Award. Dr. Beizer is a clinical professor of medicine. The study, from the Department of Medicine of the Graduate Hospital, was partially supported by a USPHS training grant. All the authors live in Philadelphia.**

of the extrahepatic biliary ducts which did not appear to be involved with neoplasm. An operative cholangiogram showed partial obstruction of the intrapancreatic portion of the common bile duct, produced by the previously felt pancreatic mass. Although a biopsy could not be obtained from the pancreas, the pancreatic enlargement was thought to be a carcinoma—a diagnosis consistent with clinical and laboratory data. A cholecystojejunostomy was performed. The immediate post-operative course was uncomplicated. One week after surgery, the fasting blood sugar was 72 mg. percent, the direct bilirubin, 4.1 mg. percent, the total bilirubin, 6.7 mg. percent, but the alkaline phosphatase, unchanged from the initial determination. On March 25, 1963, the patient was discharged from the hospital, to be followed in the tumor and diabetic clinics.

During the subsequent three months, while the patient was ambulatory, continued anorexia, nausea, vomiting, diarrhea, weight loss, and deepening jaundice all indicated progressive tumor growth. He was seen in consultation in the hematology clinic, where the recommendation was made that the patient enter the hospital for chemotherapy.

Physical examination at this point revealed a severely icteric, cachectic male with a soft, nontender, slightly distended abdomen. The liver was felt 6 cm. below the right costal margin, but the spleen remained impalpable. In spite of the critical nature of his illness, the complete blood count, including the platelet count, was normal. The direct serum bilirubin was 11.5 mg. percent and the total was 19 mg. percent; the alkaline phosphatase was 11 units. On June 20, 1963, approximately five months after diagnosis of carcinoma, treatment was started with 5-fluorouracil. The medication was given intravenously for 3 successive days in a dose of 15 mg./kg. (825 mg. daily). The patient left the hospital the day after the last injection.

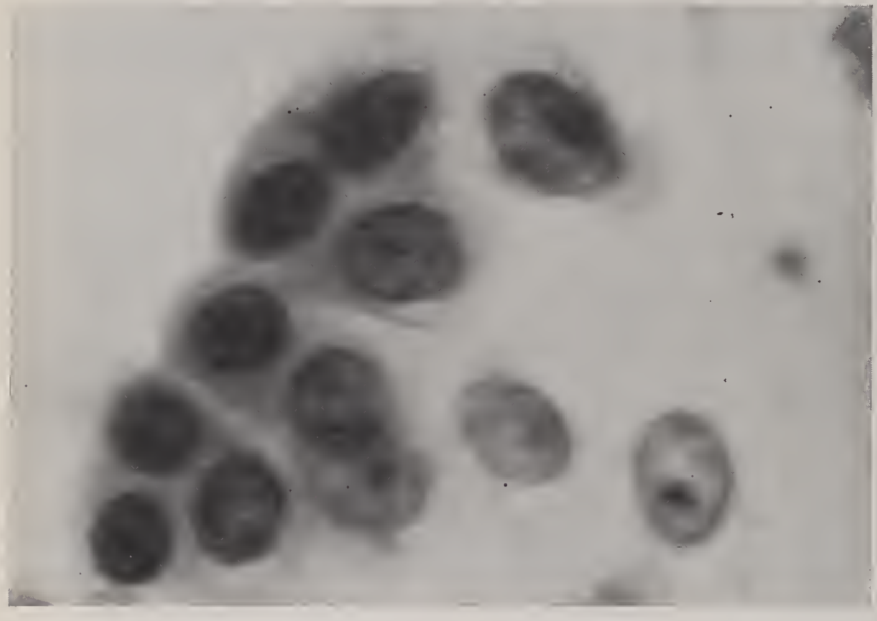

Fig. 1. Neoplastic cells, stained by the Papanicolaou method, aspirated during the secretin test (1,000 x).

He was reexamined in the hematology clinic ten days later, at which time the total white blood cell count had dropped to 4850/mm.^{3} from the pretreatment value of 10,000/mm.^{3}. Physical findings were unaltered. Since no signs of 5-fluorouracil toxicity were observed, 15 mg./kg. of the drug was given then and at weekly intervals thereafter. Beginning July 9, 1963, when the alkaline phosphatase had dropped to 4.5 units and the serum bilirubin had decreased to a total of 8.8 mg. percent, there was sustained improvement in the patient's condition. The major symptoms of anorexia, weight loss, and diarrhea gradually disappeared, paralleled by a return to normal of the biochemical indicators of uncontrolled tumor activity. On October 16, 1963, the serum alkaline phosphatase, serum bilirubin, and blood sugar level were within normal limits, where they have remained to this date. Similarly, hepatomegaly became, and remains, undetectable. Weekly administration of 5-fluorouracil was limited only by the development of intermittent, mild thrombocytopenia, at which time chemotherapy was withheld. Presently, 5-fluorouracil is given every two or four weeks in the dose outlined, with the same restriction in mind. At his most recent visit to the hematology clinic, on February 9, 1966, the patient was singularly free from signs of neoplastic and metabolic disease.

Comment

The extended survival of the patient described is distinctly unusual

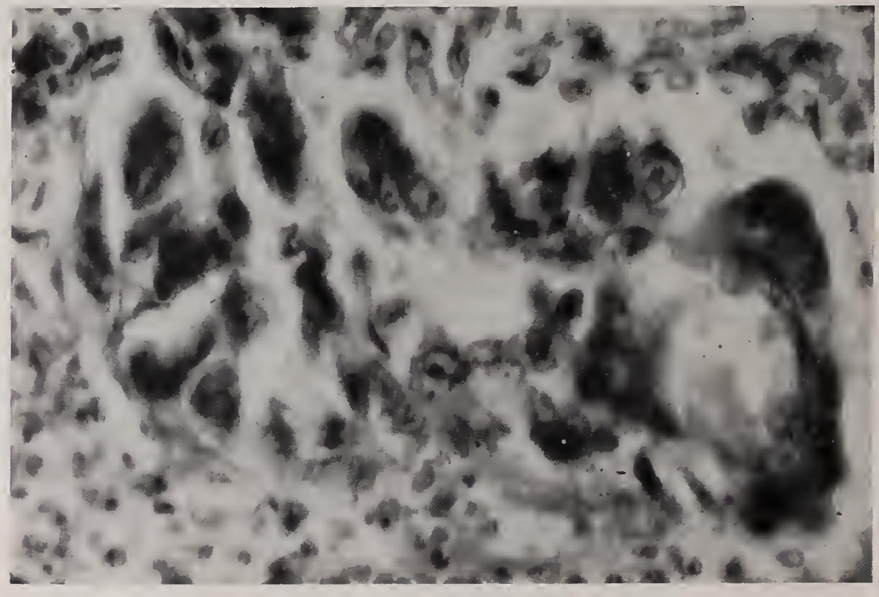

Fig. 2. Nests of heteromorphic cells present in the lymph node (450 x).

with few isolated, recorded precedents.[1, 2] Although is it conceivable that the observed improvement could have taken place spontaneously, or the jaundice was not due to hepatic infiltration with carcinoma, the striking difference in the clinical and laboratory findings before and after chemotherapy and the inexorable courses of other patients managed only by surgical means,[3, 4] strongly suggest that tumor regression caused by the antineoplastic agent was directly responsible for this change. Also important is the degree of this favorable response, which was more complete and prolonged than is customarily seen in similar patients receiving 5-fluorouracil.[5-7]

The causes for differential reactivity of identical neoplasms to a single antineoplastic agent remain undefined for the moment. In this particular instance, the efficacy of the drug may be related to a fortunate lack of overt toxicity ordinarily ascribed to 5-fluorouracil, [8, 9] and the resultant ability of the patient to tolerate continuous treatment. Also, the surprising failure of the tumor to depress hematopoiesis, in the face of its other debilitating effects, may have indicated indirectly that it would be more amenable to therapy than are other pancreatic carcinomas. It is reasonable to assume that the sustained remission is in large measure dependent on uninterrupted administration of the drug. In retrospect, the normal blood count should not have precluded the customary bone marrow aspiration prior to the beginning of treatment, since metastasis to the marrow may occur without changes in the peripheral blood. This is of immediate concern in view of the fact that myelophthisis may be a contraindication to chemotherapy.

Finally, the salutary results obtained in this case imply that cautious chemotherapy with 5-fluorouracil is feasible and may be assumed on an outpatient basis. The authors do not advocate indiscriminate administration of this or other potent cytotoxic agents. On the other hand, if the therapeutic spectrum of an antineoplastic drug includes a specific tumor in question, then its careful use is rational and worthwhile.

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Ultrasonic Angiography

Ultrasound is being used diagnostically to determine (1) shift of midline structures, (2) fetal head size, and (3) the presence of pericardial fluid. Ultrasonic angiography is a new and unproven application.

The characteristic that determines the amount of reflection and attenuation of sound waves in a material is the specific acoustic impedance, which is related to the density and elasticity of the medium. The intensity of the reflected sound (i.e., the echoes) at an interface between two materials, is dependent upon the differences in acoustic impedance of the two media. Strong echoes are obtained from vessel walls because the walls have elasticity; blood—homogeneous fluid—is free of echoes because the acoustic impedance is uniform throughout.

The abdominal aorta, a common site of aneurysm and occlusive disease, is readily accessible to study by ultrasound. On the A-mode display, the walls of the aorta are represented as two high, pulsating spikes, and the lumen corresponds to the echo-free space. By observing the pulsations, one can estimate wall thickness as well as vessel patency. The pulsations can be graphically displayed on an A-scan time-motion sweep. Demonstration of wall thickness by ultrasonic angiography, not possible with conventional arteriography, is valuable.

The aortic branches have a fairly constant relationship to the lumbar vertebrae; therefore, by relating ultrasonic measurements of an x-ray film of the lumbar spine, the location of vascular abnormalities can be determined.

This report involves the findings in 20 normal patients and 12 resected aortic aneurysms. Arteriograms and surgical specimens, when available, were used for correlation; in addition, findings were compared with recently published data on normal aortic lumen size at various levels of the lumbar vertebral column. The correlation was excellent, with no false positive or negative results. In two cases of occlusive disease of the aorta, the level of block was accurately determined. In one case of dissection of the aorta, a double lumen was detected.

In several instances in which the aortogram was technically unsatisfactory or the patient's general condition did not permit a prolonged arteriographic study, ultrasonic angiography was the only conclusive study. In two aneurysms, the lumen size by arteriography and ultrasound was within normal limits, but ultrasound detected a thick anterior wall, indicating laminated clot and thus confirming the clinical impression of aneurysm.

On the basis of this preliminary data, we have been using ultrasonic angiography as a screening test in elderly patients with suspected aneurysms or occlusive disease. Cross-sectional scanning and pictorial display of the aorta, as well as use of the Doppler effect, are future developments which hold much promise in the field of ultrasonic angiography.

Bernard J. Ostrum, M.D.,
Albert Einstein Medical Center
Symposium on Vascular Disease.

- The fitting of artificial legs immediately following amputation is reported to have these advantages: accelerated wound-healing; early ambulation (on first or second postoperative day); early recovery of proper gait; early return to work; earlier fitting with a permanent prosthesis—usually within the first thirty days postsurgery.

Synergism in Recalcitrant Acne Vulgaris

A report of good results in 78 percent of patients who had failed to respond to other therapy methods

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Acne vulgaris is the most common problem confronting the dermatologist. It is disheartening to the adolescent, and scarring of the psyche, as well as of the face, is a frequent and tragic result. The incidence of acne is unquestionably increasing with the population boom, but the number of cases seeking help is disproportionately larger, due to the increasing affluence of our society and increasing emphasis on appearance.

Most dermatologists use topical desiccating cleansers, keratolytics containing various modifications of sulfur, resorcinol, and salicylic acid, ultraviolet light, low-fat diet, antiseborrheic scalp shampoos, and limited amounts of x-ray therapy. Except for the use of oral broad spectrum antibiotics, the therapy of acne vulgaris has not changed radically over the years. Acne surgery, and the administration of estrogen-progesterone and corticosteroids are also used in selected cases. This broad therapeutic approach is rewardingly efficacious in the majority of mild and moderate cases, and if started early enough and conscientiously used until the disease is quiescent, produces good results with little or no cicatrical sequalae. Patients so treated are usually cooperative, and are not adversely affected psychologically or socially. Unfortunately there remains a formidable group of severe, recalcitrant cases of acne vulgaris which is a constant source of frustration to the dermatologist, and of concern and anxiety to the patient.

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The purpose of this paper is to present a recently developed, effective clinical approach to the problem of refractory, recalcitrant acne vulgaris using topical benzoyl peroxide and chlorhydroxyquinoline.

Approximately thirty years ago several investigators reported dramatic and frequently remarkable achievements in sycosis barbae and acne vulgaris, with combined benzoyl peroxide-chlorhydroxyquinoline topical therapy.[1, 2, 3] Unfortunately these excellent results were not consistent, apparently because of the oleaginous vehicle in which the medicaments were incorporated. The greasy base increased skin oiliness and hampered release of the oxygen, interfering with therapeutic activity. It did not prevent decomposition and loss of potency of the peroxide on long standing.

In ensuing years, other peroxides were utilized sporadically but they were subject to certain disadvantages. Some, such as hydrogen peroxide, release oxygen too rapidly;[4] some require tedious processing;[5] some leave undesirable residues; such as zinc peroxide;[6] and some, (for example, sodium peroxide), evolve a caustic degradation substance, i.e., sodium oxide (Na_2O) obviating their use.[7]

Benzoyl peroxide *per se*, is a highly explosive, extremely hazardous, dangerously flammable substance. Its chemical configuration is illustrated in Fig. 1.

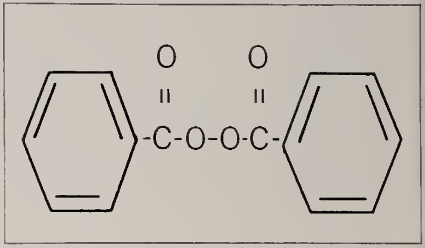


Fig. 1. Benzoyl peroxide

Nevertheless, benzoyl peroxide has many properties which make it ideal for topical therapy. It is a completely organic peroxide which leaves no insoluble foreign-body-type residue.[6] It releases free-radical oxygen comparatively slowly, and its decomposition products are harmless. It possesses antiseptic, bacteriostatic, and powerful oxidizing characteristics.

A chemical entity is now available which eliminates the problems involved in the handling of benzoyl peroxide. These hazards were surmounted by the development of a combination of benzoyl peroxide (35 percent) and dicalcium phosphate (65 percent) which renders the peroxide completely nonexplosive and nonflammable. The resultant safely does not interfere with or inhibit the substance's medicinal activity.[8]

The nonflammable peroxide is provided in a separate packet which accompanies either a specially formulated tinted, or clear, greaseless lotion containing 0.25 percent chlorhydroxyquinoline,[8] which has an antiseptic and synergistic effect.[1]

Adequate activity and potency is assured by the fresh addition of the peroxide mixture from the packet to the lotion thus activating it. Simple agitation yields a stable, compatible, microdispersion of benzoyl peroxide which releases oxygen at a controlled, extended rate. Flexibility of dosage can be achieved by adding the full packet (5 percent), half packet (2.5 percent), or quarter packet (1.25 percent) to the lotion.

Renewed interest in the efficacy of benzoyl peroxide in acne vulgaris was stirred by excellent results achieved in several recent clinical trials.[9, 10, 11, 12, 13] One of these was conducted with the preparations previously described.[9]

The paradox in the use of benzoyl peroxide is that it is characterized by powerful oxidizing properties while all other common medicaments employed in acne therapy, such as sulfur, resorcin, salicylic acid, etc., are considered to be reducing agents.[14, 15] It is conceded by all that in the summertime, acne regresses. Interestingly enough, summer sun, x-ray, ultraviolet light and benzoyl peroxide have one property in common: they are all strong oxidizing agents which inactivate microbial cells by oxidizing free sulfhydryl groups.[16] Ultraviolet and x-ray are known to exert their action "in part by the production of peroxides (R-O-O-R) in the medium, which in turn act as oxidizing agents. Some of the more penetrating radiations, such as x-rays, ionize (and hence inactivate) the cell constituents through which they pass. However, some of the effect of x-ray irradiation can be traced again to peroxide formation, since cells can be partially protected by the exclusion of oxygen during irradiation."[16]

Methods and Comments

This study, involving 50 males and 67 females age twelve to thirty-nine, extended over a six-month period. Practically all of these individuals were severe, recalcitrant cases of acne vulgaris, resistant to conventional topical therapeutic measures. Each patient received a flesh-tinted and a clear lotion containing freshly dispersed benzoyl peroxide. The formulations were as follows:

Loroxide Lotion (Tinted)

Benzoyl peroxide 5.5%W/V
Chlorhydroxyquinoline 0.25%W/V

Vanoxide Lotion (Clear)

Benzoyl peroxide 5.0%W/V
Chlorhydroxyquinoline 0.25%W/V

The patients were instructed to apply the Loroxide lotion in the morning and the Vanoxide lotion at bedtime, and were informed about the possibility of erythema or a transient slight burning sensation following application. Unless excessive erythema, peeling and/or drying were observed, patients were advised to leave the lotion on all day or overnight. As tolerance to the medication was established, the lotion was freshly applied up to three times a day until the maximum improvement was attained. Avoidance of excessive exposure to sun, cold, and wind was advised.

Benzoyl peroxide lotion was used with adjunctive therapy consisting of a low-fat diet, minimal dosage of broad spectrum antibiotics (250 mg. tetracycline daily), acne surgery, and scalp treatment when indicated. The use of harsh desiccating cleansers was interdicted, and facial cleansing was performed with either a bland soap and water, or a liquid cleansing cream. Oral estrogenprogesterone was used in selected cases of resistant acne occurring in postadolescent females. No x-ray or ultraviolet treatment was given, since in combination with peroxide therapy, these modalities may precipitate excessive irritation and erythema.

The results of the study are summarized in Table I. The criteria for determining results were objective, although the patients' opinions were also noted.

TABLE I

Severe Pustular Acne Vulgaris

No. of Cases	Excellent	Very Good	Good	Fair	No Improvement
114	17	20	52	12	13

Legend

Excellent: Marked clearing of pustular lesions and inflammation, with few new lesions; notable decrease in oiliness.

Very Good: Clearing of most pustular lesions and inflammation, with relatively moderate number of new lesions; decrease in oiliness.

Good: Clearing of many pustular lesions, with new lesions still forming and with some drying of skin.

Fair: Little improvement in acne condition; slight reduction in oiliness; incidence of new lesions unaltered.

No Improvement: Condition unaltered.

Three reactions were encountered requiring discontinuation of therapy. These cases were therefore eliminated from the study. The onset occurred within a few days, and consisted of an acute dermatitis with blotchy erythema, edema, and vesiculation, accompanied by itching and burning. The dermatitis readily responded to corticosteriod therapy.

In the great majority of cases there was a very noticeable decrease in the number of superficial pustules, a gradually increasing rate of exfoliation, and a sharp decline in oiliness. Decrease in the frequency of comedones did not occur, but the sebum in the pilosebaceous ducts with widely patent external orifices was rendered drier. The comedones became desiccated, shrunken, and more cohesive, thereby facilitating extraction. Milia and deeply seated comedones were unaffected. Abscesses and cysts did not respond so dramatically, although a noticeable increase in localization and centralization occurred which permitted earlier surgical intervention.

The keratolytic and drying effect was controlled by varying the dosage percentage and/or the frequency of application (one to three times daily).

Most patients reported a transient burning sensation, particularly with the clear lotion, for two or three minutes following application. This usually diminished or disappeared within a few weeks.

Fair, light-skinned, xerotic, blonde, or red-haired individuals were instructed to use the lotions with extreme caution, and with careful observation for possible marked peeling and erythema. Excessive drying and irritation were particularly prone to occur in the circumoral and neck areas, necessitating reduction in the frequency of application in these sites.

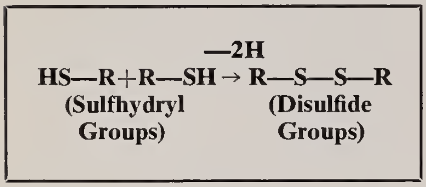
Discussion

Considering the various hypotheses for the etiology of acne, the only definite conclusion possible is that acne vulgaris can be due to one or more of a multiple of causes, including improper diet, lack of cleanliness, excessive oiliness, bacterial infection, and action of androgenic hormones.

Although anaerobic Corynebacterium acnes is found in normal as well as in acne-affected tissue, recent investigations have emphasized the possible role played by this organism in acne.[17, 18]

The blockage of the sebaceous gland orifices by comedones creates a closed, anaerobic system in which bacteria can rapidly multiply to an enormously high concentration. This may cause inflammation, and pustular type acne. Theoretically, benzoyl peroxide may play a role in relieving the condition by completely oxidizing the sebum oils and denaturizing the surface proteins.[19]

The anaerobic bacteria present in the follicular appendages could be attacked by the organic peroxide which binds adjacent sulfhydryl groups on the essential enzymes of the bacteria. This chemical reaction is illustrated in Fig. 2.



$$\underset{\text{(Sulfhydryl Groups)}}{HS—R+R—SH} \xrightarrow{—2H} \underset{\text{(Disulfide Groups)}}{R—S—S—R}$$

Fig. 2. Action of organic peroxide on anaerobic bacteria.

Interference with the normal metabolism weakens the pathogens. This probably allows the synergistic combination of benzoyl peroxide and chlorhydroxyquinoline to kill the microbes.

Microbiological Findings

Microbiological *in vitro* tests were conducted by an independent laboratory[20] to determine the effect of the peroxide-chlorhydroxyquinoline lotion on Corynebacterium acnes. A mixture with Sarcinea Lutea was cultured in 3 different media. This duo-culture produces a hardier, more abundant growth of Corynebacterium acnes than if grown alone. After four days of incubation, the control presented a heavy growth. No growth was observed in any of the peroxide-chlorhydroxyquinoline cultures. To determine whether or not this represented a bactericidal or bacteriostatic action, a small amount of the culture was transferred onto fresh media. After an additional four days there was no sign of life, indicating a "cidal" rather than "static" effect. The benzoyl peroxide-chlorhydroxyquinoline lotion is, therefore, a bactericidal agent against Corynebacterium acnes, *in vitro*. Staphylococcus aureus was similarly affected by this oxidizing antiseptic (see Tables II and III).

TABLE II
Zones of Inhibition
(24 Hours' Incubation)

Antiseptic	**Organisms**		
	Staph. 209P	**Sarcinea Lutea**	**Sarcinea Lutea and Corynebacterium Acne**
Vanoxide lotion:	**22 mm.***	**14 mm.***	**24 mm.***
	No change even after 7 days' incubation.		

* Zones in excess of 5mm. are indicative of strongly static agents.

TABLE III
Biocidal Tests
(Four Days' Incubation)

Antiseptic	**Media 1**	**Media 2**	**Media 3**
A. Vanoxide lotion	**No growth**	**No growth**	**No growth**
Control lotion	**4+**	**4+**	**4+**
Attempt to Regrow Transferred Aliquot From A.			
(Differentiates 'cidal' from 'static' effect)			
B. Vanoxide lotion		**No growth**	
Control lotion		**4+**	

Culture=Corynebacterium acne with sarcinea lutea
4+ =Heavy growth
Conclusion: Benzoyl peroxide-chlorhydroxyquinoline lotion is bactericidal against Corynebacterium acnes.

Obviously, additional evidence should be obtained by the *in vivo* evaluation of the germicidal effect of this peroxide-chlorhydroxyquinoline combination on Corynebacterium acnes before any theoretical conclusion is drawn. Simultaneously, the correlation between the clinical results and the bacterial count should be determined. The excellent clinical results obtained together with the *in vitro* laboratory findings warrants further investigation.

A purely scientific method for the determination of the therapeutic activity of a topical medication is the double-blind study. Since the patients in this series were selected especially because they were refractory to all other topical medications, there was no need or rationale for a double-blind comparison.

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Renal Homotransplantation

Clinical Experience — A Case Report

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Physicians have long conjectured about the clinical feasibility of organ transplantation. Investigational efforts have been directed toward this end since the beginning of the present century, and important technical progress was made prior to World War II. Until recently, however, clinical progress has been impeded by inability to control the immunologic reactions responsible for the inevitable rejection process. In 1960, Schwartz and Dameshek demonstrated that homograft survival could be prolonged significantly by the use of immunosuppressive drugs.[1] With this discovery, the current era of clinical transplantation began. The purpose of this paper is to report a clinical experience with prolonged (two and one-half year) graft survival following renal homotransplantation.

Case Report

P. S., an eleven-year old white female, was first admitted to Hahnemann Hospital on June 2, 1963. One year earlier, she had begun to note easy fatigability, nocturia, and enuresis. Evidences of mild anemia had been found, and in February 1963, blood urea nitrogen (BUN) elevation discovered. Anemia and fatigue continued thereafter, and intermittent blood transfusions had been administered between February and June, 1963. On admission, she complained only of easy fatigability.

On physical examination, weight (65 pounds) and height (53 inches) were noted to be less than average. Blood pressure was 124/74. The physical findings were otherwise unremarkable except for scattered ecchymotic lesions present on all four extremities but most marked on the legs.

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Laboratory studies included: hemoglobin, 10.5; hematocrit, 33; white blood count, 7,830 with normal differential; fasting blood sugar, 87 mg.%; blood urea nitrogen (BUN) 66 mg.%; creatinine, 3.8 mg.%; sodium, 144 mEq./L.; potassium, 4.3 mEq./L.; chlorides, 105 mEq./L.; and CO_2, 11.1 mEq./L. Urinalyses revealed mild proteinuria and intermittent pyuria. Urine cultures contained coliform bacilli. Creatinine clearance was 8 cc./minute, inulin clearance 6 cc./minute, and para-aminohippuric acid (PAH) clearance, 20 cc./minute. Abdominal films revealed both kidneys to be slightly reduced in size. Retrograde ureteral catheterization failed to disclose any postrenal obstruction, and left retrograde pyelogram was unremarkable. Cystoscopy was normal. Radioisotope renograms disclosed marked impairment of renal function bilaterally, with minimal renal accumulation and severely delayed renal excretion. Biopsy of the left kidney, obtained by open renal biopsy, revealed chronic pyelonephritis.

The patient was treated with antimicrobial therapy and alkalinizing drugs. She was discharged from the hospital on June 21, 1963.

She was readmitted to Hahnemann Hospital on October 18, 1963. In the interim, fatigue had become increasingly severe, finally preventing her from attending school. In addition, nausea began and subsequently became intractable. Physical findings were essentially unchanged except for increased ecchymoses. BUN was 108 mg.%; creatinine, 4.8 mg.%; sodium, 136 mEq./L.; potassium, 4.0 mEq./L.; chlorides 100 mEq./L.; and CO_2, 14 mEq./L.

In view of the advanced stage of her disease and its unremitting downhill course, kidney transplantation was considered. The patient's mother was evaluated as a possible donor and found to be acceptable, in terms of blood type compatibility and renal function.

Renal homotransplantation was performed on November 13, 1963. Azathioprine (Imuran) was begun one week prior to the procedure, and corticosteroid drug (Aristocort) therapy was started on the day of operation. In addition, the homograft was locally irradiated with doses of 150 R on the first, fifth, and eighth postoperative days.

Adequate urine flows were obtained postoperatively from the patient's own kidneys. The homograft remained severely oliguric, however, during the first postoperative week, and azotemia progressively worsened during this interval (Fig. 1). During the second postoperative week, the urinary output from the homograft gradually improved, and during the third postoperative week the level of nitrogen retention fell to normal levels.

On December 17, 1963, bilateral nephrectomy was performed. Although the urine output declined somewhat following this operation, plasma creatinine (0.7 mg. percent) and BUN (15-23 mg. percent) remained within normal limits. The patient was discharged on March 26, 1964. Discharge medications included Imuran (100 mg. daily) and Aristocort (2 mg. daily).

The patient did not exhibit any signs of rejection until the fifth post-transplant month. Within a few days after discontinuation of Aristocort, oliguria began and mild azotemia followed (Fig. 2). Aristocort was restarted in large dosage. Although renal function subsequently improved, BUN and creatinine levels persisted at levels higher than those recorded prior to the rejection reaction. Aristocort was slowly reduced to a maintenance dosage of 4 mg. per day.

There have been no further evidences of rejection during the patient's subsequent clinical course. Two and one-half years post-transplant, she is fully ambulatory, attends school regularly, and engages in all normal activities. Plasma creatinine averages 1.3 mg. percent, BUN, 35 mg. percent.

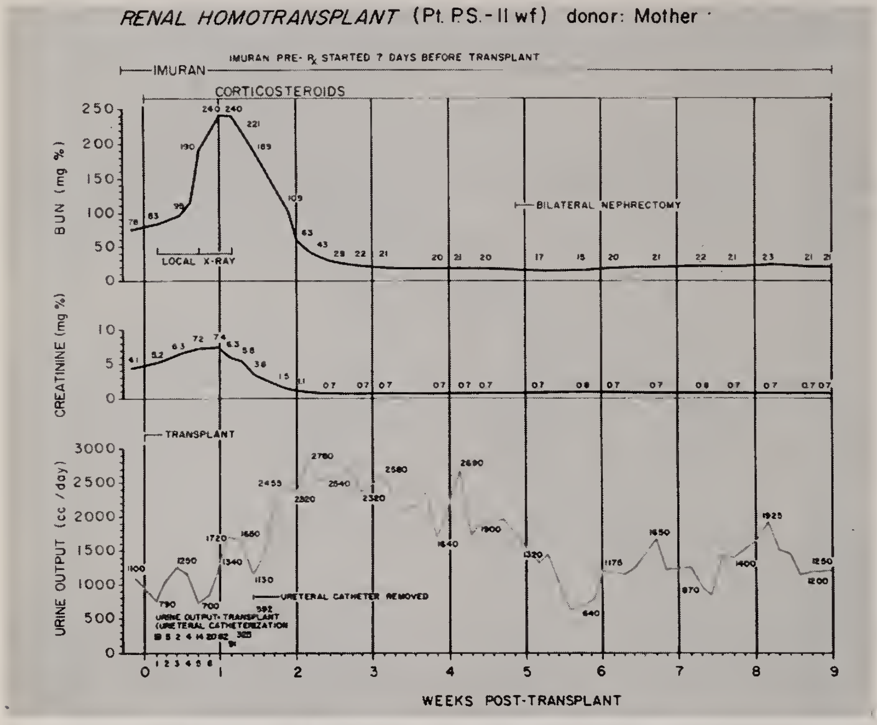

Fig. 1. Clinical Course during the initial nine weeks post-transplant.

Maintenance drug therapy includes Imuran (100 mg. daily) and Aristocort (4 mg. daily).

Discussion

In 1944 and 1945, Medawar published the classic studies which defined the nature of the rejection process that inevitably follows unmodified organ homotransplantation.[2, 3] These investigations provided strong evidence that rejection is due to the host's immunologic reaction to foreign tissue. Although the exact nature and location of the antigen and the resultant antibodies remains undetermined, it has been adequately demonstrated that the immunologic capacity of the prospective host can be favorably modified by several means, including total body irradiation and use of immunosuppressive drugs.

Host conditioning with total body irradiation was extensively studied in animals in the early 1950's. During the past ten years, clinical trials have demonstrated that prolonged human homograft survival may be achieved with total body irradiation. The number of successes has been limited, however, by the high incidence of serious irradiation injury to bone marrow and other vital tissues. Most transplant failures, following the use of this modality, have resulted from bone marrow depression and overwhelming infection. Thus, despite some notable individual successes, there appears to be little general prospect of achieving consistent success with this approach.

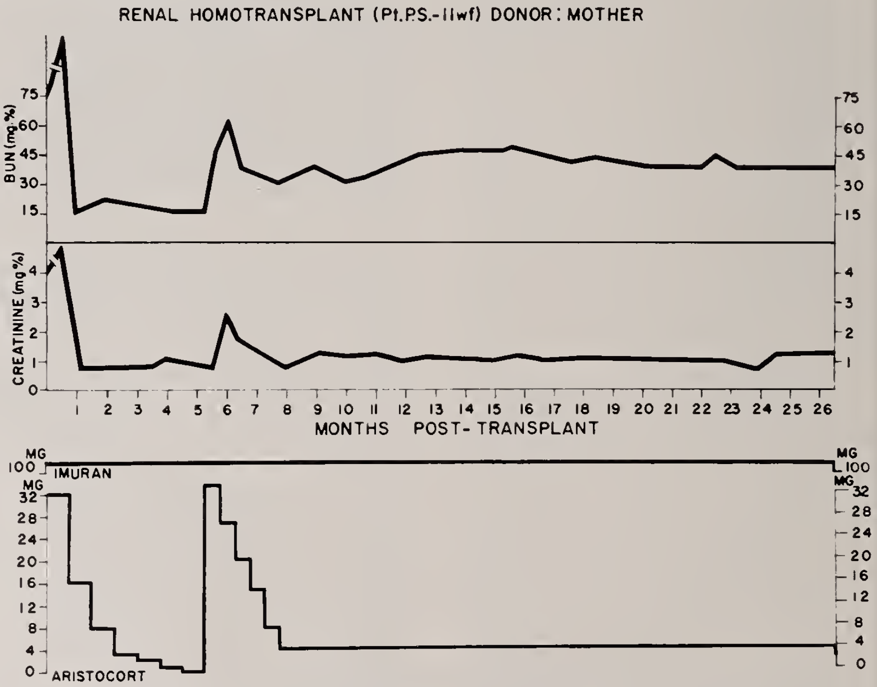

Fig. 2. Alterations in BUN and plasma creatinine encountered during the first 26 months post-transplant.

In 1959, Schwartz and Dameshek demonstrated in animals that the immunologic response to foreign protein antigens could be inhibited by pretreatment with 6-mercaptopurine.[4] One year later, Schwartz and Dameshek, Zukoski, and Calne independently demonstrated that this drug prolonged homograft survival.[1, 5, 6] Subsequently, other drugs including azathioprine, actinomycin C, and azaserine have been shown to possess clinically useful immunosuppressive properties. With these drugs, it is now possible to prevent or delay graft rejection without totally crippling the body's defense mechanism to other environmental antigens.

A mass of experimental evidence testifies that homografts are tolerated better and for a longer period of time if the donor and recipient are closely related. Clinical experiences tend to confirm the experimental observations.

In 1965, the Human Kidney Transplant Registry reported the accumulated worldwide experiences with kidney transplants.[7] Of 627 primary homotransplants, 237 (38 percent) were functioning as of March 15, 1965. Of transplants performed more than one year previously, 51 percent (37/72) of transplanted kidneys from sibling donors (excluding identical twins) had survived at least one year. The corresponding figures for all other blood relatives was 38 percent (43/112), for unrelated living donors, 10 percent (7/68), and for cadaver donors, 10 percent (11/108). Thus the available clinical experiences indicate that the use of related donor kidneys provides the greatest likelihood of transplant success. It seems likely, therefore, that genetic compatibility may play an important role in the prolonged homograft survival achieved in the patient described in this report.

Accumulated clinical experiences are as yet too limited to enable one accurately to predict the clinical future of the patient herein described. Although experimental studies suggest that some degree of host-graft adaptation develops with prolonged homograft survival, late rejection still looms as a continuing potential threat. Should this complication be averted, various delayed homograft diseases, e.g., glomerulonephritis, may be encountered.[8] The ultimate toxicity of the immunosuppressive drug, azathioprine, also remains an unknown; and, finally, "late extrarenal syndromes" have occurred as additional late complications.[8] Hence the ultimate prognosis in this patient remains unpredictable at present.

Conclusions

Despite some notable clinical successes, including a small number of prolonged homograft survivals, renal homotransplantation cannot yet be regarded as a standard surgical procedure. Significant technical advances have been achieved, but numerous clinical and immunologic issues remain unresolved. Nonetheless it does appear that the era of clinical homotransplantation has been successfully initiated.

• **This study was supported in part by P.H.S. grants No. 5-Ro1-HE 09146-02 and HE 06368.**

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Surgery in Diabetes

A simple regimen for management of diabetes during surgery was studied during 36 operations on 30 patients normally controlled on insulin, and in 20 operations on 17 patients normally controlled on oral hypoglycemic drugs —i.e., tolbutamide, chlorpropamide, or the latter drug plus metformin.

The patients, subjected to varied surgical procedures, were starved and given no treatment or intravenous dextrose from midnight, preoperatively, until after their operations.

Blood-sugar levels were determined before and after the procedures, and the findings were analyzed with reference to factors such as previous maintenance treatment, preoperative blood-sugar level, and length of the operation. The clinicians concluded that this simple regimen is safe and effective for most operations on diabetics, obviating more complicated and probably more dangerous regimens.

Since the regimen is satisfactory for patients on oral hypoglycemic drugs as well as for those controlled by insulin, the former need not be hospitalized several days before surgery to be stabilized on insulin. This saves time for patient and hospital.

Blood-sugar can be checked after operation, and further treatment given as necessary; the possible danger in the use of an indwelling catheter is avoided, dextrose drips are unnecessary, and the diabetic's veins can be conserved. The few patients to whom dextrose or insulin was given showed greater changes in blood-sugar levels than did those from whom insulin and carbohydrate were withheld.

Analysis of preoperative and postoperative blood-sugar levels revealed that the initial blood-sugar level and the normal dose of insulin had no effect.

No tendency was found for blood-sugar to rise in patients controlled on soluble insulin, nor for it to fall in those controlled on depot insulin.

No support was provided for the argument that operations should be done in the morning to avoid the risk of hypoglycemia from continued action of the depot insulin. In fact, no such risk existed: time of day made no difference.

Based on an article in *Lancet* (July 10, 1965), by J. Fletcher, M. J. S. Langman, and T. D. Kellock, London, England.

Fetal Transfusions

New transfusion methods, to help an unborn infant survive when an immune reaction in its mother's body begins to destroy the infant's red blood cells, are being used with encouraging results.

Whereas ten years ago about one in four of such anemic infants died, the death rate in the past three years has fallen to less than one in ten. The procedure is risky, but its mortality record has evoked favorable reactions to its continued use.

From an article in **JAMA,** May 16, 1966.

Steroids in Hemorrhage

Extended treatment with large doses of steroids may enhance the survival rate of patients in hemorrhagic shock, according to study findings at Boston City Hospital. In an initial double-blind investigation, 48 patients in shock or impending shock who were given methylprednisolone intravenously, ante-surgery, had a much higher survival rate in the first 24 postoperative hours than did an equal number of controls.

Emphasis on capillary circulation has directed attention to the adrenergic blocking drugs and the steroids as vasodilators in treating shock. The Boston studies were undertaken to explore possible benefits of the latter under clinically controlled conditions.

Although there was no difference in eventual survival rates in the two groups studied, clinicians theorized that if the survival rate during the first 24-hour postoperative period can be increased by the use of a single dose of steroids, it is conceivable that continued therapy could result in an increase in eventual survival rate.

Pulmonary Emphysema and the Heart

Part II

Thus far, you have not discussed the cardiac picture. Why?

I have purposely avoided mentioning the heart. If pulmonary emphysema is recognized early and properly managed, we should prevent or delay the development of heart disease. However, early lung changes, if undiagnosed, may lead to serious forms of heart disease such as chronic cor pulmonale.

What is the recommended management of early emphysema?

I believe the following measures should be instituted: (1) avoidance of all inhaled irritants, especially tobacco smoke; (2) early control and prophylactic management of respiratory infections; (3) environmental control of humidity and inhaled allergens; (4) desensitization therapy of allergens; (5) use of prophylactic and therapeutic oral bronchodilators; (6) use of expectorant drugs to help remove retained secretions; (7) use of mucolytic agents orally and by inhalation; (8) humidification by large volume nebulizer treatment; (9) breathing exercises and postural drainage; (10) corticosteroids (short-term use for acute attacks, longer-term in selected patients); (11) trial of ethamivan, 60 mg. at bedtime, to relieve carbon dioxide accumulation and nocturnal respiratory acidosis; (12) consideration of tracheal fenestration, where indicated, to overcome upper airway obstruction and/or dead space; (13) aggressive continued treatment to maintain results of therapy; and (14) rehabilitation (physical, psychological, and vocational) toward more nearly normal living.

What happens when early diagnosis is not made?

This is the type of patient we usually see with either pulmonary or cardiac insufficiency accompanied by infection. These patients will need adequate antibiotics, vigorous use of bronchodilators, and intermittent positive pressure breathing to correct the hypoxemia. Oxygen must be given in low concentrations, either by nasal catheter or (preferably), by inspiration of 22-24 percent oxygen through a mask. When congestive heart failure complicates ventilatory insufficiency (and it is commonly the presenting sign of ventilatory failure), additional therapy with diuretics and digitalis may be indicated.

What is the present status of the respiratory stimulants?

The role of respiratory stimulants in the treatment of chronic obstructive pulmonary disease is not clear. As indicated previously, the patient with this syndrome probably does not have a depressed respiratory center; rather, severe airway obstruction requires such great work of the respiratory muscles in order to achieve a normal alveolar ventilation that hypoventilation is accepted as a compromise adaptation. Nonetheless, it is an interesting paradox that the administration of a respiratory stimulant such as dichlorphenamide (a carbonic anhydrase inhibitor), leads to increased ventilation and to a sense of improvement on the part of the patient. Since this drug has no measurable effect on the mechanics of respiration, it is possible that some of the discomfort experienced by these patients results from the carbon dioxide retention rather than from the increased work of breathing, and a trial of this type of therapy is warranted.

When is tracheotomy necessary?

If secretions within the airways become a major problem and the patient is not responding to therapy, one should not hesitate to do a tracheotomy and to institute hourly suction of the tracheobronchial tree.

What is the prognosis?

The prognosis of this condition is not as bad as was formerly believed. Many patients with chronic obstructive pulmonary disease who have been followed for a number of years show no evidence of further impairment of pulmonary function. Episodes of right-heart failure and of increasing pulmonary symptoms are generally associated with infections, and can be controlled. Indeed, the management of acute ventilatory failure is generally a very rewarding clinical experience. The treatment of chronic obstructive pulmonary disease is far less dramatic and rewarding, but with the aid of the measures that have been outlined, most patients can be taught to lead a comfortable life within the limitations imposed by their exercise tolerance. Fortunately, the patient with this syndrome is comfortable at rest, and if he keeps within the prescribed limits of exertion, the condition is neither immediately life-threatening nor unpleasant.

• William G. Leaman, Jr., M.D. questions Harry Shubin, M.D., Medical Director, Broad Street Hospital and Medical Center, Philadelphia, Pennsylvania. Dr. Leaman, Fellow, Council on Clinical Cardiology of the American Heart Association, edited this Brief for the Council on Scientific Advancement, in cooperation with the Pennsylvania Heart Association.

High Blood Pressure

Measurement or management?

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In the Pickering-Platt controversy, neither Pickering's belief that essential hypertension is a multifactoral trait and its genetic determination polygenal in nature,[1, 2] nor Platt's contention [3-5] that hypertension is a specific, well-defined, hereditary disorder, at present helps the practicing physician. If all he does is take the patient's blood pressure, this is only a measurement; but if he assesses the possible causes, the target organ damage, and the stage of the hypertension, and treats the patient as a person, his procedures constitute a whole clinical entity.

The new as well as the old diagnostic methods assist us in eliminating the extensive causes of secondary hypertension.

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Secondary Hypertension

Coarctation may be simply eliminated by taking the blood pressure in the leg and finding it to be the same as or higher than in the arm. The adrenal causes of secondary hypertension are three: a pheochromocytoma may be suspected, but it is diagnosed or eliminated only by a vanillmandelic acid (V.M.A.) test; Cushing's syndrome with its multiple modalities of diabetes, osteoporosis, and obesity is diagnosed only by the elevation of the 17 hydroxycorticosteroid levels in the urine or the cortisol plasma levels in the blood; primary aldosteronism is not so easily identified since Conn described normal kaliemia as well as hypokalemia. However, elevated aldosterone levels with normal renin levels are certainly helpful. Renal involvement may be due to many causes, each having the same end point of azotemia and anuria, yet differing greatly in the early stages. It may be associated with systemic disease such as polyarteritis, disseminated lupus erythematous, or diabetic glomerulosclerosis. The causes of primary renal disease are pyelonephritis with pus in the urine, acute or chronic glomerulonephritis with albumin and red cells, and unilateral renal disease (congenital or acquired from atheromata, emboli, or thrombosis). The finding of a difference in the renal size of one centimeter or more by intravenous pyelogram is a good screening test, but the aortography (structurally) and split renal function tests (functionally) must be used before permitting surgery.

Target Organ Damage

In the absence of an apparent cause, the job of assessing the target organ damage in primary hypertension is begun. The eye grounds will reveal an accelerated process by generalized arterial narrowing, chronicity by sclerotic changes (increased light reflex), and malignancy by hemorrhages and exudates with papilledema. The heart is examined by electrocardiogram and x-ray. The electrocardiogram may reveal early minor voltage changes or advanced left ventricular hypertrophy, with at least 7.5 mm. elevation of the R wave in AVL being diagnostic. The earliest signs of cardiac enlargement by x-ray are revealed in the aortic arch size's being greater than 15 per cent (Ungerleider-Clark table). The typical boot-shaped heart appears late, following hypertrophy. Renal function may be assessed by measuring the blood urea nitrogen (BUN), but over 50 percent of renal function will be lost before elevation reaches 40 mg. percent. One may study the renal blood flow by the phenosulfonephthalein test (normal being greater than 25 percent in the intravenous test after fifteen minutes), glomerular profusion by the urea clearance, and tubular function by a 12-hour urine concentration test. Early changes will occur in these later tests much earlier than the BUN.

Up to this point, we have evaluated the possible causes and results of an elevated blood pressure. The most important part is to decide—does this patient have hypertension?

Systolic Hypertension

The systolic causes of hypertension range from atherosclerotic in the elderly, to increased stroke volume such as aortic insufficiency or third degree atroventricular block, and to high output causes as with severe anemia, hyperthyroidism, nutritional deficiency (beriberi), or an arteriovenous fistula, and can usually be found on careful examination. The initial factor of anxiety must be ruled out by repeated blood pressure examination before one assumes that diastolic hypertension is present.

History, Physical Examination

When starting the physical examination it is best not to inflate the cuff more than once on each arm so as not to alarm the patient, thus increasing the anxiety and further elevating the blood pressure. An easy plan to follow is: measure blood pressure in the right and then in the left arm while the patient is sitting; repeat immediately on standing, and again after five minutes. The average values of these readings will usually give one an overall immediate indication of whether or not diastolic hypertension is present. Needless to say, physical examination of most of the rest of the system is usually normal; but one must look for cardiac enlargement, murmurs, and heart failure, as well as a bruit over the epigastrium or kidneys, and measure the blood pressure in one thigh.

Once assured that one has found diastolic hypertension and is not just dealing with too small a cuff on an obese arm, the next important step is that of understanding the patient: his parentage and siblings for family history of hypertension and longevity; his environment at home and work; his dietary habits, especially the use of salt and the presence of over-eating obesity; his tension release mechanisms such as hobbies, sports participation, or amount of exercise; and finally, his apparent personality type (aggressive or regressive), and his response to stress.

Stages of Hypertension

Group I. *Prehypertension.*[8, 9] A hereditary background of hypertension in parents or siblings, or a family history of vascular disease (coronary or cerebrovascular), or premature parental mortality (before the age of sixty-five years), should be detected during history taking. For example: the patient is normotensive but has an accentuated personality trait of being overly aggressive or regressive, possibly coupled with facial flushing and tachycardia. His social history will usually reveal an excess of overeating (obesity) or of salt ingestion (adds salt without ever tasting food). The combination of these factors should make one aware of the necessity of yearly examination of blood pressure to detect the earliest onset of hypertension.

Group 2. *Stress Hypertension.* The intermittent elevation of blood pressure due to any cause. Exercise of course results in increased cardiac output with tachycardia and elevation of the blood pressure. This is a form of stress hypertension, but it is related to, and normal for, all of us. It is only the person who continues to have elevation of his blood pressure above and beyond certain undefined limits that we can say has true stress hypertension. Emotion as well as physical factors frequently are the cause. The mechanism may be first a vascular hyperreactivity and only later an actual increase in the peripheral resistance—the cause of sustained essential hypertension.

Group 3. *Established diastolic hypertension.* In this group of hypertensives, one finds a range from minimal to severe elevation of the blood pressure of the highest magnitude. The important groups are as follows:

1. Diastolic hypertension without target organ damage.
2. Diastolic hypertension with target organ damage.
3. Accelerated or malignant hypertension. In this group pyelonephritis has been implicated as a cause, and in some cases where there has been minimal or quiescent hypertension, a rapidly progressing blood pressure may result from pyelonephritis, and always should be looked for.

The progression from one stage to another does not occur in an orderly sequence, for not all stress hypertensives will develop sustained hypertension, just as not all diabetics will require insulin. The potential is there, but how and why are unknown. If there were some simple test to differentiate each type of hypertension, there would be no problem. However, no one test has yet been very effective in separating the types. Until one is found, each patient must be followed with regular evaluation of his symptoms, his target organs, and his blood pressure.

Possible Etiologic Mechanisms

Present evidence suggests that prehypertension is a precursor of stress hypertension and results in a disturbance in the regulation of the blood pressure. Normally, the sympathetic discharge from the higher centers and the vasomotor center are inhibited by the moderator reflexes of the baroreceptors in the carotid sinus or aortic nerves and there is homeostasis and

TABLE I

Stages of Hypertension

I. Prehypertension:
- **1. Normotensive.**
- **2. Heredity—Hypertensive parents or siblings.**
  - **CVA or coronary between age 40-65.**
  - **Premature parental mortality (death before age 65).**
- **3. Accentuated personality:**
  - **Aggressive.**
  - **Regressive.**
- **4. Facial flushing or tachycardia.**
- **5. Obesity (be sure to use large enough cuff).**
- **6. Adds salt routinely before tasting.**

II. Stress hypertension:
- **1. Intermittent elevation of blood pressure.**
- **2. Other findings of prehypertension.**
- **3. Elevation of cholesterol—as index of accelerating atherogenesis.**

III. Established diastolic hypertension (diastolic B.P. over 90 mm.Hg.):
- **a. Diastolic hypertension without target organ damage.**
- **b. Diastolic hypertension with target organ damage:**
  - **Fundiscopic changes of hypertension.**
  - **Hypertensive cardiovascular disease.**
    (as indicated by ECG or chest x-ray).
  - **Renal function decreased.**
- **c. Sustained or malignant hypertension:**
  - **Rule out unilateral renal disease.**
  - **Eliminate pyelonephritis as cause of acceleration.**

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normotension. In the prehypertension there may be a hereditary defect in the storage of catecholamines or a hypersensitivity due to a defect of o-methyl transferase (an inborn error of metabolism).

The environmental factors, such as increased anxiety, or an exaggerated response to stimuli, produce intermittent elevation of the blood pressure and pulse by an epinephrine-like reaction which at first only increases the cardiac output. This would be stress hypertension. The persistence of continuous psychic stress may then activate the neurogenic mechanism, be it the humoral release of catecholamines or overstimulation of the sympathetic nervous system with the release of norepinephrine. This results in an immediate increase in the peripheral arteriolar resistance and an elevation of the blood pressure, especially the diastolic. There is probably also a secondary or delayed response to the increased sympathetic flow mediated through the adrenal medulla via the hypothalamus and the pituitary with release of ACTH and stimulation of the adrenal cortex to produce aldosterone with its effect in the kidney to retain sodium.

In order for homeostasis again to prevail, there is a resetting of the buffer mechanism at a higher level and thus the establishment of sustained hypertension. This will result in a corresponding decrease in renal blood supply, and this reduction in perfusion pressure will result in stimulating the kidneys to produce renin from the juxtaglomerular apparatus. This results in the release of angiotensin which brings into play the sodium retention action of aldosterone. The sodium may cause the blood vessel cells to swell, or may make the cells more sensitive to norepinephrine, either of which increases the peripheral arteriolar resistance perpetuating the cycle and resulting in histopathological alteration in the arterioles.

TABLE II

Management of Hypertension

Prehypertension:

- **Regular yearly examinations.**
- **Avoid adding excess salt at the table.**
- **Weight reduction, if obese.**
- **Cholesterol reducing (Atherogenic Index).**

Stress Hypertension:

- **Preventive Medicine:**
  - **Suggesting moderation and reorganization of schedule.**
  - **1. Regular semiannual visits.**
  - **2. Avoid hypochondriacal dependency.**
  - **3. As in Prehypertension (salt, weight, cholesterol).**
- **Drug therapy:**
  - **1. Sedatives or tranquilizer for stress.**
  - **2. Thiazide diuretic 3 x per week for salt reduction.**

Sustain Diastolic Hypertension:

- **General measures. (as above under Preventive Medicine).**
- **Drug therapy:**
  - **Group I Diastolic 90-100 mm.Hg.**
    - **Step 1, Thiazide diuretic—(effective 40%).**
    - **Step 2, Thiazide diuretic and Rauwolfia—(effective 60-75%).**
  - **Group II Diastolic 100-120 mm.Hg.**
    - **Try steps 1 and 2 above.**
    - **If ineffectual, thiazide diuretic and Methyldopa or Pargyline* or Hydralazine (Step 3).**
  - **Group III Diastolic 120 or over.**
    - **May try step 3, but usually ineffectual.**
    - **Step 4, thiazide diuretic and block agent* or Guanethadine.***

Finally:

1. **On a fixed dose of medication, the blood pressure will vary with stress.**
2. **Therapy is aimed at relief of symptoms and prolongation of life. When necessary, tranquilize the high pressure and elevate the "low" feeling.**

* Titrate using standing B.P. as index of effectiveness.

Prognostic Significance

Since decreased survival seems to be a function of increased arterial pressure, one can conclude that all patients with an increase in blood pressure need therapy. That is, each succeeding blood pressure increment imposes added stress on the cardiovascular system. There is also further evidence that elevation of blood pressure, even mild elevation, leads directly to degenerative atherosclerotic complications of the circulatory system at a more rapid rate than normal, and almost always results in an increase in coronary artery disease. Metropolitan Life Insurance charts[10] indicate that at a minimal elevation of 150/100 in a male forty-five years old, there is a reduction of eleven and one-half years of his life expectancy, i.e., approximately one-third of his expected years are shortened or taken away. This holds true for both systolic and diastolic elevations to a greater or lesser degree, but is significant in each case. As a guide to which groups of patients are more susceptible than others, let us consider those needing less drastic therapy.

1. The elderly asymptomatic patient with no complications.

2. The mildly hypertensive patients with a family history of hypertension, but coupled with long life.

3. Middle-aged women without signs of vascular disease, most of whom seem to develop fewer hypertensive complications.

Then there are the patients needing marked attention and therapy, if one is to prolong their lives:

1. Men with diastolic hypertension and minimal evidence of vascular disease (eye grounds, heart by electrocardiogram or x-ray, or kidney) should receive therapy regardless of the family history.

2. Those with minimal hypertension but with a positive family history of hypertension coupled with a premature death or disability; (an example would be a young man with minimal diastolic hypertension, for example, 140/

100, who always adds salt without tasting his food, whose mother has high blood pressure, and whose father has a coronary at age fifty).

Therapy

A guiding precept should be careful avoidance of overtreatment. The general objectives are: preventative medicine, rest, and reorganization of schedule and attitude—with moderation as the goal. Do not emphasize the seriousness of hypertension, as the patient may be made a hypochondriac. Therefore, be careful of what is said at visits; but make sure the patient understand that, like diabetes, this is a lifetime disease and must be followed at regular intervals. Also, if the patient is obese, weight control may be of benefit. Certainly one should caution the patient to avoid adding salt at the table and eating obviously salty foods such as pickles, pretzels, potato chips, etc.

Drug Therapy

At times of stress, a mild sedative or tranquilizer may be helpful to allay anxiety. If one follows the etiology of stress from its neurogenic mechanisms with relief by sedatives and tranquilizers to a secondary release mechanism of aldosterone with sodium retention frequently in stress hypersensives, small doses of diuretics, three to five times a week, may eliminate this secondary effect and prevent the progression to sustained hypertension.

With the onset of symptoms (and probably a blood pressure of 150/100), or laboratory changes in the electrocardiogram, chest x-ray, or eye grounds, antihypertensive therapy should be started. It is usually begun with a diuretic. This should control approximately 40 percent of your patients, using one or two tablets of any of the diuretic drugs per day. If this is not successful, the addition of small amounts of Rauwolfia[11] with the diuretic will usually help control 60-75 percent of your patients; an additional 25 percent (whose diastolic pressure will range from 100-120) will require an additional drug with the diuretic drug. If renal ischemia is apparent, hydralazine or methyldopa[12] will be helpful. Dosage of these latter two drugs should be started with the smallest dose possible and titrated to the largest dose (for hydralazine 50 mg. q.i.d., and for methyldopa up to 1 gm. q.i.d.). Pargyline[13] may be helpful not only as an adjunct in lowering blood pressure, but also because of its antidepressant action. The most frequent error is probably the overdosage, with the stronger antihypertensive agents making the patient more miserable with the drug than with his hypertensive symptoms.

In rapidly accelerating hypertension or so-called malignant hypertension (diastolic blood pressure over 120), it is best to begin with a diuretic and a combination of guanethadine[12] or a ganglion blocking agent such as mechalamine.[13] The diuretic is usually given two to three times a day; and the dosage of the guanethadine or mechalamine begun with the smallest dose possible and titrated to larger doses in order to control the hypertension. One should not be afraid to use the larger doses if necessary, but should be sure to measure the standing blood pressure with these latter agents, since they are primarily orthostatic in their effect. If one neglects taking the standing blood pressure, one will most certainly overtreat and lose a patient—by precipitating either a coronary occlusion or a cerebrovascular accident due to hypotension, or symptomatically having the patient leave for a more kindly doctor who either knows how to handle these drugs and does help the patient, or not knowing about them, omits them, relieving the drug symptoms (but leading to an earlier demise for the patient). One should not be alarmed that on a fixed dosage of medication, the blood pressure will vary from time to time according to the amount of stress, which is directly reflected in the blood pressure measurement.

The final treatment of a hypertensive patient is based on overall evaluation of the history, physical examination, and laboratory data. Therapy is aimed at the relief of the symptoms, the prolongation of life and, when one is not as entirely successful as one would like to be, the tranquilization of the high pressures and elevation the "low" feeling.

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Magnets Used in Stroke Prevention

A Pittsburgh neurosurgeon is one of three scientists to develop means of preventing cerebrovascular accidents by the use of magnets and iron filings introduced into the brain.

Hubert L. Rosomoff, M.D., quoted in an article in the Washington (Pennsylvania) *Reporter*, stressed that much more research is needed before the procedure could be used routinely. The technique has been successfully used, however, in eight patients in the Pittsburgh area.

Tiny magnets are inserted via a small hole in the skull and fixed near the weak spot in a blood vessel, after which minute iron filings—about half the size of a red blood cell—are fed into the area.

The filings, able to pass through the smallest capillaries, move into a main artery and flow toward the weakened wall, where they collect around the magnets. A clot forms around the filings and the magnets are then removed.

Dr. Rosomoff pointed out that he has not yet determined whether or not the filings might prove toxic.

If the technique continues to have successful results, it could often eliminate the need for radical surgery.

Dr. Rosomoff, who is associated with the University of Pittsburgh School of Medicine, said that similar techniques have been developed by John F. Alksne, M.D., University of California, and by Dr. David Roth, Harvard Neurosurgical Service.

Electronystagmography

In the presence of unexplained vertigo or dysequilibrium, diagnosis can be much more conclusive when skilled operators use this technique.

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The patient presenting with vertigo or dysequilibrium requires a thorough and complete evaluation. These symptoms are usually rather frightening, and even the most stouthearted patient has at least a slight fear that he has had a stroke or has a brain tumor. To eliminate his fears, the patient must be examined carefully and told what his problem really is. In addition, it is most essential that the investigation be thorough from a purely medical standpoint, for a number of serious illnesses may first present with some type of dysequilibrium.

The management of the patient with vertigo becomes much less formidable if one approaches it as systematically as possible with knowledge of what information is essential and useful and what is superfluous. Certainly much is yet to be learned about problems of dysequilibrium; enough is known, however, so that a practical approach to patients with this symptom can be formulated. This paper briefly outlines the basic procedures necessary for the diagnosis of patients presenting with dysequilibrium, and discusses the place of electronystagmographic tracings in such an evaluation.

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The primary problem in dealing with patients having vertigo is to separate those patients with definite peripheral vestibular tract pathology from those with central nervous system lesions, for in the former, the diseases are usually benign and will usually improve with time and/or treatment, whereas in the latter, serious and life-threatening diseases may be present. In addition, those patients having definite peripheral disease usually need no further neurologic evaluation, and can be followed by the otolaryngologist. Undiagnosed or doubtful problems, or those with central nervous system symptoms or signs should, of course, be evaluated by a neurologist and possibly by a neurosurgeon. It is well to remember, however, that the majority of patients with vertigo have peripheral vestibular tract disease, and investigations of their symptoms are best begun by interested otolaryngologists.

Table 1, "Mixed Classification of Vertigo," lists commonly-encountered conditions causing vertigo or dysequilibrium. Any classification consisting of purely clinical entities intermixed with specific, definitely identified anatomic diseases has obvious disadvantages. It illustrates how limited our knowledge is of the diseases producing vertigo or dysequilibrium. However, this particular classification has been most useful in our clinical experience.

The vestibular pathways are involved, along with the proprioceptive, visual, and cerebellar systems, in the maintenance of equilibrium. The vestibular nuclei in the brain stem send and receive a constant stream of information to and from the semicircular canals and utricles on both sides, the cerebellum via the cerebellovestibular nuclei interrelationship, and the spinal cord via the spinovestibular and vestibulospinal tracts. In addition, nervous connections exist between the vestibular nuclei, reticular system, ocular motor nuclei, and cerebral cortex, and direct nervous pathways exist between the vestibular end-organs and cerebellum. Most of the pathways are both efferent and afferent and normally an even balance is maintained among all anatomic areas.

Rapid motion of the head and body in a normal person are unperceived and automatic, since the signals sent to the vestibular nuclei and eventually to the cerebral cortex are appropriate, and agree with past experience. When inappropriate impulses are carried to the brain stem, due to some recent local damage in any of the above areas, or possibily to overloading of already damaged receptors—that is, when the delicate electrical balance of the whole vestibular system is not maintained—vertigo or dysequilibrium occurs.

This concept of the entire balance system, composed of individual parts interconnected by afferent and efferent pathways allowing for a delicate inter action among the parts, and the concept of appropriate versus inappropriate responses to motion or the lack of it, should be kept clearly in mind when one is dealing with these patients.

Finally, before considering the methods available for clinical evaluation of the patient, it is worthwhile to consider the symptom itself. It is not necessary that a patient describe rotary vertigo in order for disease of the vestibular system to be present. Many patients will describe only unsteadiness or an occasional misstep. Some may suddenly be thrown to the ground and feel as if they have been pushed. The patient with the sudden onset of endolymphatic hydrops usually has severe rotary vertigo, but the patient with an acoustic neuroma slowly destroying the vestibular nerve trunk may have no disturbance of equilibrium at all. Some patients who clinically have very little residual peripheral vestibular tract function can describe only a "cloudiness" in the head. A bedridden patient receiving long-term streptomycin therapy may note no sense of motion whatever, but only marked staggering and disturbance of equilibrium when he finally gets out of bed.

These symptom variations very often reflect the speed with which damage occurs to parts of the vestibular system, or the passage of time since the onset of damage. They do not indicate, as is often said, whether a lesion lies peripherally or more centrally, for sudden central vascular occlusions can give rise to severe rotary vertigo identical at its onset to those of more peripheral and suddenly developing lesions.

TABLE I

Mixed Classification of Patients with Vertigo

A. Peripheral Lesions

1. **Meniere's disease**
2. **Vestibular neuronitis**
3. **Sudden vestibular paralysis (a) with hearing loss; (b) without hearing loss**
4. **Postural vertigo, benign paroxysmal type (BPT)**
5. **Endolabyrinthitis (i.e., mumps)**
6. **Serous labyrinthitis (post-stapedectomy)**
7. **Suppurative labyrinthitis (in chronic mastoiditis with cholesteatoma and fistula)**
8. **Temporal bone fracture**
9. **Otosclerosis**
10. **Ramsey-Hunt syndrome**
11. **Cogan's syndrome**

B. Intermediate and Central Lesions

1. **Demyelinating disease**
2. **Cerebellopontine-angle syndrome**
3. **Brain stem disease (vascular insufficiency and occlusion, trauma, tumor, infection)**
4. **Posterior fossa lesions**
5. **Encephalitis and meningitis (often viral; occasionally epedemic)**
6. **Cervical syndrome (vertebral artery insufficiency)**
7. **Psychogenic vertigo**
8. **Posterior-inferior cerebellar artery syndrome**
9. **Vertiginous epilepsy**
10. **Migraine variant**

C. Drugs

1. **Streptomycin**
2. **Dilantin**
3. **Alcohol**
4. **Barbiturates (occasional)**

D. Etiology Unknown

The six essential procedures involved in the evaluation of a patient with dysequilibrium or vertigo are listed in Table 2. This paper will not discuss each of these parts of the evaluation but will concentrate on the use of electronystagmography (ENG) in procedures 4 an 5—positional and caloric testing. It is in these parts of the evaluation that the ENG has direct application.

An ENG tracing is basically an attempt to quantitate testing and obtain more accurate results when evaluating the vestibular system. It is a tracing of eye motion and reproduces nystagmus by measuring potential differences occurring with eye motion. Fig. 1 illustrates the potential difference existing between the cornea and retina in the normal eye. Electrodes placed on either side of the eye can be used to measure variations in this potential difference with eye motion. These differences in potential, although extremely small, can be amplified suitably and recorded with an ink-writer mechanism producing an ENG tracing. Fig. 2 shows a subject with electrodes in place; in Fig. 3 caloric testing is illustrated.

Fig. 4 shows a maximum-response portion of a typical normal tracing of induced nystagmus obtained through irrigation of a right ear with warm water at 44 degrees centigrade. Initially, rather random eye movements occur, but by 60 seconds after irrigation, a typical pattern of a quick component followed by a slow return occurs, as seen in channel 1. By convention, the electrodes are arranged so that a rapid nystagmus movement to the right is reproduced on the tracing as an upward deviation. In this particular tracing, one will note the rapid eye movement to the right side. Channel 2 is measuring the speeds of the slow components only, and recording them. This is done electronically

TABLE II

Steps in Evaluating Patient With Dysequilibrium

1. **History**
2. **General ear, nose, and throat examination (including cranial nerves)**
3. **Equilibrium and cerebellum tests**
4. **Positional tests**
5. **Caloric tests**
6. **Audiometric evaluation**

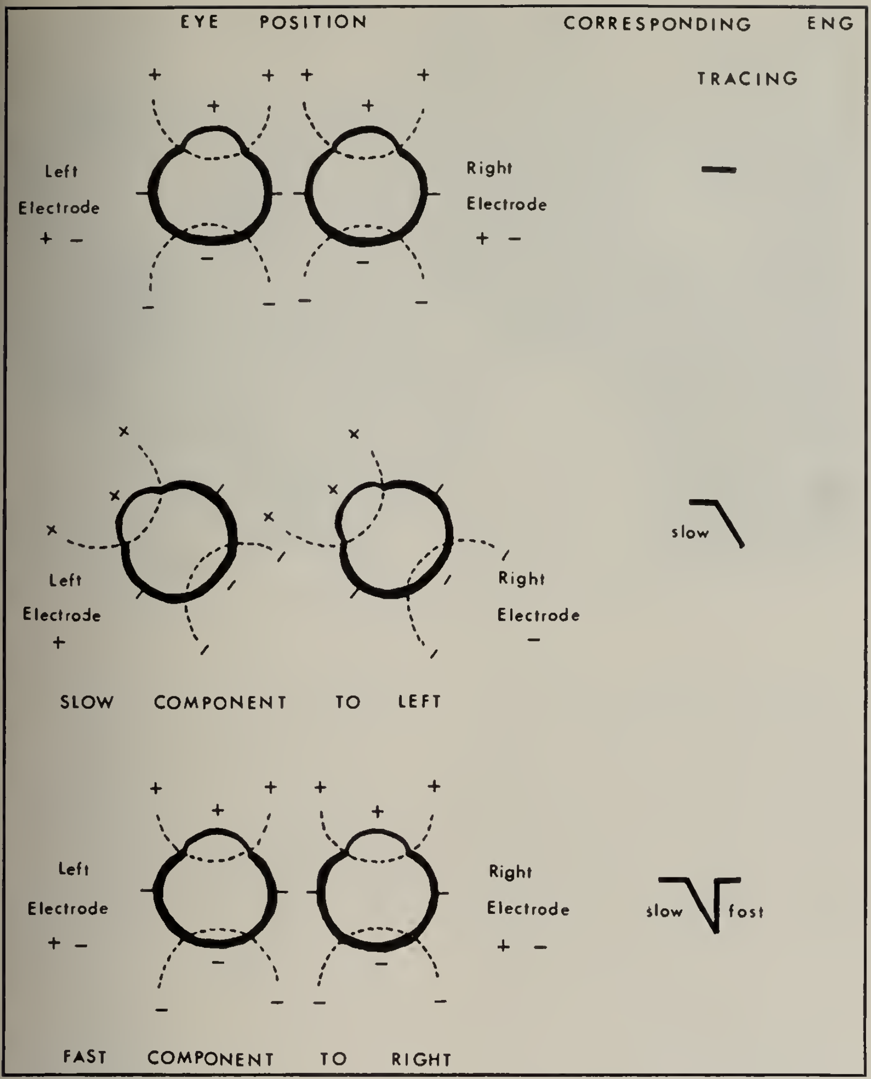

Fig. 1. Variations in the corneoretinal potential amplified to produce electronystagmograph (ENG) tracing.

and the speed is proportional to the height of the tracing.

Several advantages of an ENG tracing are immediately evident. Its chief asset is in the elimination of the effects of eye fixation. An extreme example of this occurs in trained figure skaters. McCabe's[1] excellent study in 1960 pointed out that trained figure skaters, when tested calorically even with 20 cc. of ice water, have no response to the caloric testing stimulus when their eyes are open. In addition, a trained skater can execute extremely rapid turns and sudden stops, without any evidence of staggering or dysequilibrium. Recently,[2] however, the same studies were carried out using electronystagmography with trained skaters who had their eyes closed. Under these circumstances a normal and brisk nystagmus accompanied by vertigo and staggering occurs both with caloric testing and immediately after a rapid turn. In other words, in the second set of experiments, the chief difference is that the eyes are now closed and eye fixation has been eliminated. It is thus clear, from a clinical standpoint, that patients should be examined for nystagmus in the dark or with their eyes closed in order that a true picture of the vestibular response may be obtained. The latter technique is practical with the use of an ENG tracing.

In addition, this technique will reveal latent spontaneous nystagmus in patients having the condition. A patient may show no spontaneous nystagmus with his eyes open, but it may be clearly present when his eyes are closed. Also, some nystagmus provoked by the stimulus either of positional change or of caloric testing may be present only when eye fixation has been eliminated. The finding of small amounts of nystagmus during positional testing in the evaluation of these patients can be extremely important in the search for central lesions causing dysequilibrium, as well as in providing clear evidence of an organic problem.

An ENG tracing will also provide a permanent record for the patient's chart, to which future ENG tracing can be compared. In addition, an ENG tracing can be a most powerful tool for evaluating the influence of drugs upon the vestibular system.

Further study of the ENG tracing will show that it provides quantitative measurements that would not be available otherwise. For many years the standard and most readily available measurement of caloric response was that of duration of nystagmus measured from the onset of stimulation until the final nystagmus movement. Investigators realized that clinically, many patients exhibited equal duration of response to caloric stimuli in each ear but that the intensity of their reactions varied markedly. The measurement of the intensity factors of nystagmus has been subdivided by Stahle[3] into measurements of its frequency, total amplitude of all the quick com-

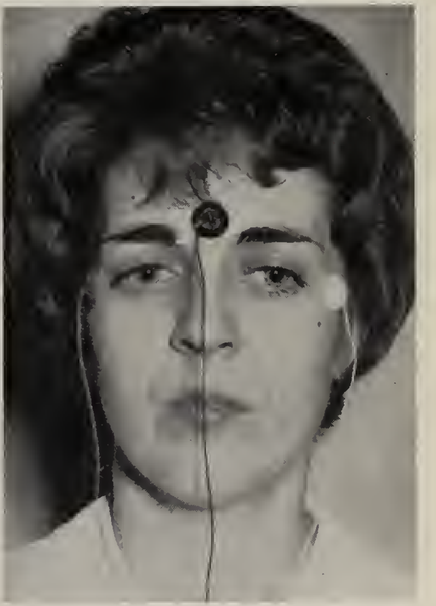

Fig. 2. ENG electrodes in place.

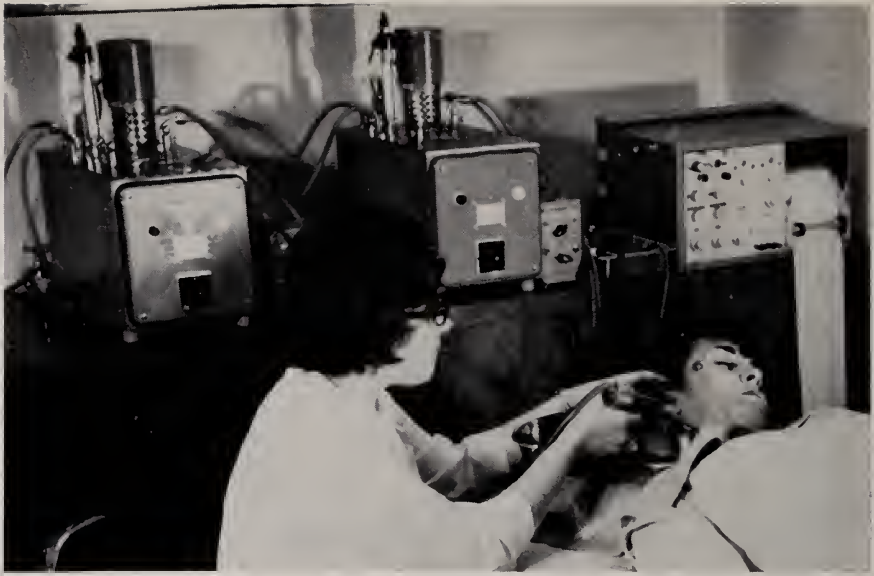

Fig. 3. Caloric irrigation. Note solenoid value control gun, constant-temperature water baths, timers, and electronystagmograph.

ponents, and the most useful of all measurements—the maximum speed of the slow component. The latter measurement is really one provided by the degree of slope of the slow component of the nystagmus tracing. Fig. 5 shows the maximum-response portions of a patient's nystagmogram. The direct recording of channel 1 only is illustrated, and each ear has been tested with both warm (44° C.) and cool (30° C.) water. With the use of calibration eye movements obtained prior to each testing procedure, one can easily compute the maximum speed of the slow component in degrees per second. In this particular example the patient has a response in the right ear which is reduced 47 percent over that in the left. In other words, a right vestibular paresis is present. There is also a mild left directional preponderance.

Finally, the use of an electronystagmograph greatly shortens the time a physician must spend testing each patient. The time necessary for complete positional and caloric testing of a patient with vertigo or dysequilibrium is substantial. Added to this is the time necessary to obtain a vertigo history, to do a complete ear, nose, and throat and cranial nerve examination, and to perform equilibrium and cerebellar tests. However, an electronystagmograph allows the construction of a system which a trained technician can easily operate. Such a system should include automatic timers, constant-temperature water baths, and solenoid valves to control water flow, and can include electronic circuits which can measure some of the intensity factors involved in nystagmus. In this way the final tracings obtained can be interpreted by the physician and included in his total evaluation of the patient.

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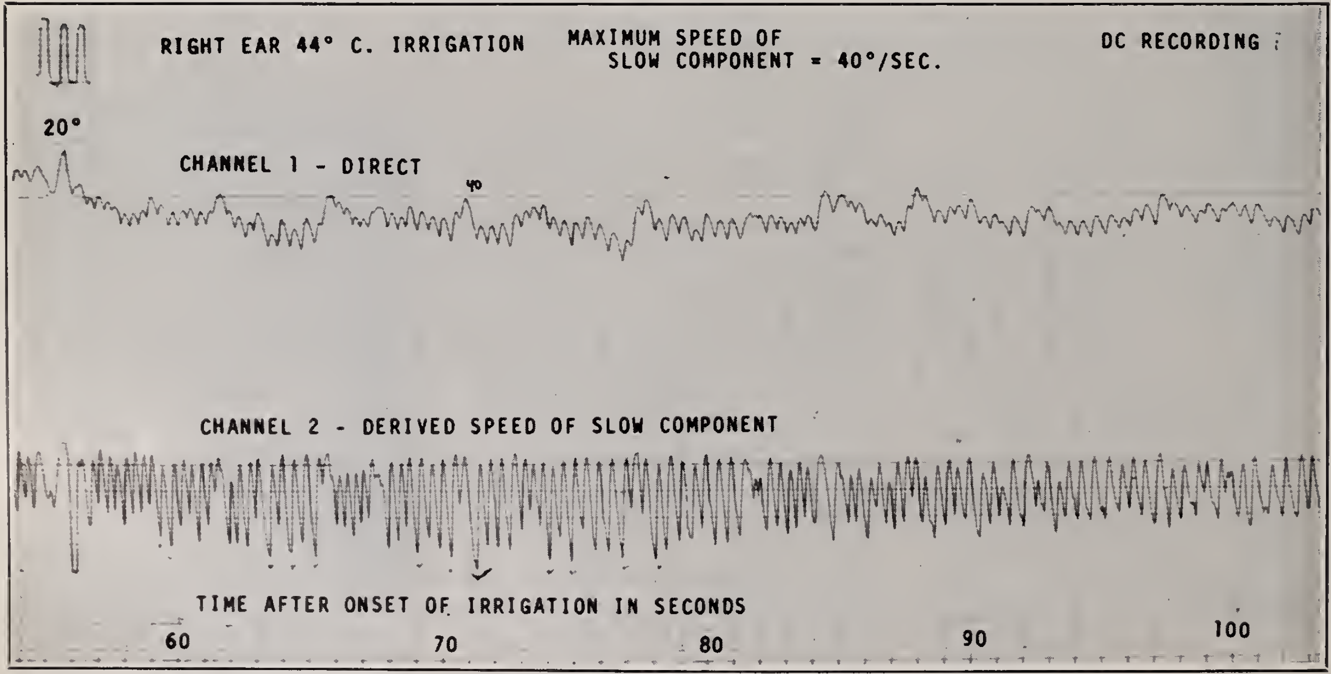

Fig. 4. Portion of ENG tracing of right ear; 44° C. irrigation.

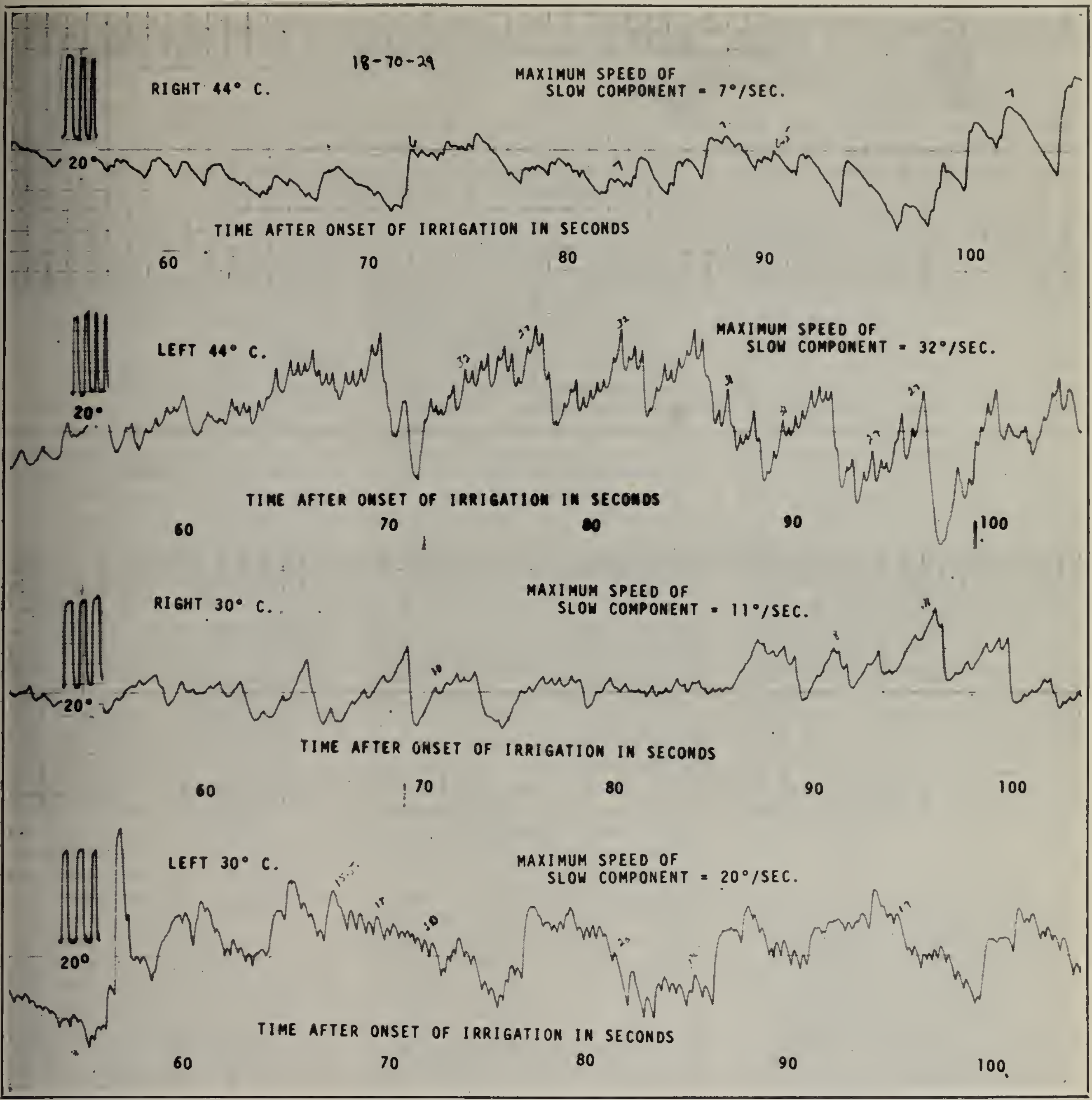

Fig. 5. Channel 1 tracings—patient with a right vestibular neuronitis. Tracings indicate right vestibular paresis with left directional preponderance.

Medicine, the only profession that labours incessantly to destroy the reason for its own existence.

James Bryce, 1838-1922.

Medical Education in Colonial America

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Medical education has been a major concern of the doctor for generations. Its importance is well known to him as an individual, as well as to all medical organizations and institutions. It is informing and interesting to note that a number of colonial physicians spoke wrote, and worked to develop and improve the education of the doctor.

Very few educated physicians accompanied the founding colonists to America. It is said that Dr. Samuel Fuller accompanied the first emigrants who landed in Plymouth in 1620 and that Dr. Russell accompanied Captain Smith in his survey of Chesapeake Bay in 1608.[1] During the first half-century after the founding of the colonies, only the Governors Winthrop, one of Massachusetts and the other of Connecticut,[1] represented respectful attainments in the medical profession.

Drs. Giler, Firmer, and John Fisk arrived in New England in 1633 and 1637.[1] About the same time, there appeared Dr. Thomas Thacher whose paper entitled, *A Guide in Smallpox and Measles* published in 1677, is said to be the first medical publication in America.[1] Colonists began to journey to Europe to secure their medical education at about the middle of the seventeenth century. Drs. Bellingham and Henry Saltonstall [1] were several of the first to journey to England to complete their medical education, receive their medical degree, and return to practice in Massachusetts.

The first half of the eighteenth century appears to represent a new era in medical education and development. Travel to Europe for completion of their education increased, and among those going were Zabdiel Boylston (Boston), James Lloyd (Massachusetts), Lt. Governor Colden and Drs. James Ogden (New York), John Morgan, William Shippen, Jr. and Benjamin Rush (Pennsylvania), and John Mitchell and Thomas (Virginia) and Lining from South Carolina. The year 1760 saw the enactment in New York of an act to insure examination of the doctor before permitting him to practice, and a similar law was enacted by New Jersey in 1772.[1] A course of lectures in anatomy was started by William Shippen in 1762 and he was joined by Morgan in 1765.[11] The first medical school in the colonies was organized with Shippen, Morgan, Kuhn and Benjamin Rush among its first professors.[11] It continued until 1777 when the Revolutionary War necessitated suspension of its activities. The Society of the New York Hospital secured its Charter in 1767 and Clossy, Jones, Middleton, Smith, Bard, and Tennent became the first professors of King's College Medical School.[1] Classes and lectures began in the winter of 1768-1769 and the degree of Bachelor of Medicine was conferred first upon Samuel Kissam and Robert Tucker upon completion of their studies. The Pennsylvania Hospital in Philadelphia became the first hospital in the colonies. One of its first physicians, Dr. Thomas Bond, was believed to have presented the first clinical lecture on medicine in America.

Drs. John Bard and Peter Middleton, in 1750, performed the first dissection of the human body for the purpose of imparting medical instruction in the colonies. New Jersey, in 1766, became one of the first colonies to form a medical society, the oldest medical society in existence in this country today. In 1781, the Massachusetts Medical Society was incorporated, with thirty members. It seems evident that this colonial period was actively and progressively aimed at the education of the doctor, through the development of medical schools, organization of hospitals, and the institution of medical societies.

A study of this colonial period reveals several outstanding physicians of the day whose insight into the future made them active and strong proponents of medical education. John Jones, Samuel Bard, Peter Middleton, and John Morgan constitute a great foursome in these efforts. Each of them has left behind lectures which accurately and enthusiastically present their efforts in this regard. Viewed from the present, their insight and vision are much to be admired and they appear to have been far in advance of their confreres.

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John Jones

John Jones, surgeon, author, and humanist, was born in Jamaica, Long Island, in 1729. He began the study of medicine under the tutelage of Dr. Thomas Cadwalader, a distinguished Philadelphia physician, and continued his education in Europe, receiving the degree of Doctor of Medicine at the University of Rheims. Upon his return to America, he began his practice in New York. His major efforts were in surgery and he became an accomplished lithotomist, accoucheur, and medical lecturer. With Middleton and Bard, he was one of the petitioners for a hospital in New York and became Professor of Surgery at King's College Medical School. In 1778, he returned to Philadelphia to practice, securing an appointment on the staff of the Pennsylvania Hospital.

He is said to be the author of the first textbook of surgery in America, *Plain Remarks Upon Wounds and Fractures,* published in 1775. He was the first vice-president of the College of Physicians of Philadelphia, and a member of the American Philosophical Society. He continued practice in Philadelphia until his death on June 23, 1791. Jones, while professor of surgery at King's College Medical School, presented an introductory lecture to his class in surgery in 1769. W. B. McDaniel, II,[2] has said of this lecture, "it has the potentiality of adding appreciatively to our knowledge of the earliest medical school teaching in the colonies." Jones says that little can be added to the remarks about the advantages of medical schools made by "Doctor Middleton and the other gentlemen Professors." He divides surgery into medical and manual, (likely the counterpart of present day operative and nonoperative) stating, "it will appear very evident how necessary it is for the student in surgery to make himself thoroughly acquainted with all those branches of medicine which are required to form the most accomplished physician; to which must be super-added some peculiar qualifications to constitute the surgeon of real merit and abilities."

The needs of the surgeon are further described as "an accurate knowledge of the structure of the human body required not only by attending anatomical lectures, but by frequently dissecting dead bodies with his own hands. Chemistry and materia medica are very necessary to a right understanding of Pharmacy or composition and to these should be added some progress in the mathematics and mechanics." Such remarks make evident Jones's knowledge of the need for the basic education and training of the physician. His awareness of the requirements is further shown when he states that observation and physical experiments are most important in medicine, saying, "they mutually assist each other and are like lights united for the dissipation of obscurity." The need for the continued education of the doctor is much talked of today, but Jones's insight included this necessity when he said, "continual study, therefore, is equally necessary to the surgeon as it is to the anatomist and physician who in neglecting to inform themselves . . . will become only servile imitators . . . and perhaps . . . be little wiser than their first masters."

Inclusion of such remarks in this introductory lecture would seem to show that Jones not only was personally cognizant of these necessities, but felt it important to make his students, the future doctors, aware of these facts. As McDaniel has said, "Jones was not only a well-versed surgeon, but a keen critic and commentator, invariably weighing the dicta of others against his own experience," as one impressed with the need for education would be.

Samuel Bard

Born in Philadelphia, Pennsylvania on April 1, 1742, Samuel Bard,[7] was of French descent and the son of a well-known physician, John Bard. Educated in private grammar school, at nineteen years of age he went to Edinburgh to continue his studies. He studied under such men as Fothergill, Hunter, Smith, and MacKenzie. He attended classes under Cullen, Monro, and Ferguson. He received his degree in 1765, his diploma bearing the date of September 6. Inquisitive in mind, he developed a great interest in botany and had considerable creative ability. He began his work at King's College Medical School, New York in 1772, becoming professor of chemistry, the dean of the faculty and later president of the medical school of Columbia College. He died in 1821, twenty-four hours after the death of his wife, both of them being buried in a common grave.

Nicholas Murray Butler in his introduction to *Two Discoveries Dealing with Medical Education in early New York* by Samuel Bard, M.D., says "These two addresses, and particularly the first address, speak for themselves. They establish Dr. Bard's leadership in medical education in America and justify his reputation as prophet and seer."

The first address [3] was presented on May 16, 1769, at the commencement of King's College Medical School, where Bard served as professor of chemistry, natural philosophy and astronomy. The address is begun with a clear statement of the need for education, when Bard remarks, "That this country has, ever since its Discovery and Settlement, laboured under the greatest Disadvantages, from the imperfect Manner, in which Students have been instructed in the Principles of Medicine; and from the Consequent prevailing Ignorance of but too many of its Professors; is a Truth which cannot be contested; and of which many unhappy Families have severely felt the fatal Effects." The necessity for the continuous education of the doctor must have occupied an important place in Bard's thoughts, for early in his discourse he reminds his audience, "Do not, therefore, imagine that from this Time your Studies are to cease, so far from it, you are considered as but just entering upon them; and unless your whole lives are one continued Series of Applications and Improvements, you will fall short of your Duty." Recommended further to the students were the studies of others, first Hippocrates and later the "moderns," Sydenham, Boerhaave, Huxham, Pringle and Whytt, and "some others of our latest English and Scotch physicians." Bard stressed this need if the physician was to progress and avoid fixation of ideas and opinions.

Later in his address, the usefulness of postmortem study is discussed. He urged careful study of the body after death, to seek into the causes of diseases and improve one's management of the patient. Witness his own statement: ". . . by carefully inspecting the Bodies of the Dead, inquiring into the Causes of their Diseases, and thence improving your own Knowledge and making further and useful Discoveries in the healing Art."

Bard later urges the development of a public hospital for the care of the indigent and needy and stresses its usefulness in the education of the doctor, in his own words, "that it affords the best and only means of properly instructing Pupils in the Practice of Medicine."

The efforts of this famous colonial physician continued and he apparently maintained a constant interest in the education of the doctor. In 1812, he delivered a second address [4] on medical education and fifty years after his first discourse in April, 1819,[5] he presented another address again emphasizing the need for medical education. In his lecture of 1812, Bard reviews many of his previous ideas on education. Again, emphasis is placed on the usefulness of the public hospital in the training of the doctor and Bard states "the student must not only receive the instructions of his teachers, he must not only reflect on and digest what he hears and needs, he must see and handle and examine for himself." The statement is clear and succinct and almost modern in its connotation. In this discourse is mentioned the value of the association of young men in medicine in their education and training. They eventually assist and aid one another in their studies and their pursuits and Bard wisely mentions this useful association. Even more modern in its connotation is his last bit of advice. . . . "It is therefore proposed that one free scholarship shall be established for every county in the state; and that a fund should be provided to pay the professors for the instruction of such young men as shall be elected to these scholarships."

Peter Middleton

Equally known among colonial physicians was Peter Middleton, the third of the original petitioners of the New York Hospital. Middleton was born in Scotland and educated at St. Andrew's University. He migrated to New York, where he became an eminent physician. He was the first professor of pathology and physiology in the medical department of King's College, as well as professor of chemistry and materia medica. In 1768, Columbia conferred an honorary M.D. upon him.

He was Governor of King's College from 1770 to 1780. He is said to have died of cancer of the pylorus in New York City in 1781. One of the most frequently mentioned things about him has been his part in the first recorded postmortem dissection done by him and Dr. John Bard in 1750 on the body of Hermanus Carroll, executed for murder. His interest in the problem of education of the doctor is apparent in his lecture[8] *A Medical Discourse on an Historical Inquiry into the Ancient and Present State of Medicine,* presented in 1769 at the opening of the medical school in the City of New York. Middleton states, "Thus then the Knowledge of the Theory of Physic, regularly acquired as a Science, according to the best and most approved Methods of Study is the surest Guide to a safe and judicious Practice and distinguishes the rational Physician, from the daring Empyrick, and other trammel'd Labourers in this Profession." Early in his address, he discusses the need for a good understanding by the doctor of the theory of medicine, especially anatomy. "The Foundation of all true and rational Medical Knowledge is Anatomy"; and physiology, "there are other Parts of Knowledge, respecting our present Well Being and Existence, which are properly the Subjects of Physiology." "Pathology necessarily depends upon the previous Knowledge of Physiology, and is naturally connected with it, it is usual therefore to teach both, in the same Course of Lectures. . . . A familiar Acquaintance with the Materia Medica and Pharmacy . . . is another Acquisition in this Science' " states Middleton. All of these he considers as a necessary part of "this theory." In addition, Middleton stressed the need of the use of the hospital and infirmary in education and the "Association of Gentlemen," medical societies actually, which would aid in their help for students, doctors, and the public.

John Morgan

Most famous in this period was John Morgan, an active Philadelphian; he was one of the first colonial doctors to journey to Europe for his medical training.

Morgan's ideas concerning the education of the doctor advanced and developed early in his life: for he thought and talked about the establishment of a medical school while a student in Edinburgh. He began courses of lectures soon after his return to America and progressed to the professorship of materia medica and chemistry shortly after starting his career. Certainly, he must be considered one of the first to appreciate the importance of medical training in an organized medical school. A founder of the first medical school in the Colonies, he presented *A Discourse Upon the Institution of Medical Schools in America*[9] on May 30, 1765.

A good bit of this discourse had been written in Paris before his return. Morgan discusses the various subjects of study necessary in the training of the doctor, and indicates his own interest to confine his work only to medicine and a further effort to improve. He proposes then that "students should be taught a regular course of every distinct branch of medicine, and names these branches as "Anatomy, Materia Medica, Botany, Chemistry, and the Theory of medicine and practice, describing each in detail." He realized that the present state of the colonies and the lack of professed teachers made this pursuit difficult, remarking "the infant state of the colonies, and the want of professed teachers, have hitherto clogged medical pursuits in America with innumerable obstacles." He warned that individual efforts of the doctor were not enough for his proper education. The need for trained physicians was well-known to him and he urged it upon his fellow citizens.

He, too, emphasized the need for medical societies, stating "societies form a kind of magazine, which collects together all the knowledge of the learned and consecrates it to public utility." He emphasized that the city of Philadelphia would draw many students to the school and that their number would be gradually augmented. He urged that library facilities be a part of the college. He was one of the founders of the College of Physicians and its medical library. Attention was directed by him to the use of courses of lectures for students, and he suggested Dr. Shippen as teacher in this regard in Anatomy. He offered personally to give a "course of lectures upon the Institution of the Theory of Medicine." Speaking of the advantages of such instruction, he says "A course of regular instruction is to the mind like the rays of light darting through the obscurity of chaos."

Morgan's ideas and opinions were then well-formed, sharp and comprehensive. He was cognizant of the need for a medical school and of its advantages to the populace and to the doctors. His confidence in the success and future of a medical school is best presented in his own words: "Perhaps this Medical Institution, the first of its Kind in America, though small in its beginning, may receive a constant increase of strength, and annually exert new vigour. It may collect a number of young persons, of more than ordinary abilities; and so improve their knowledge as to spread its reputation to distant parts." He pursued all of his beliefs by being one of the founders of America's first medical school, in the city of Philadelphia.

It has often been said that there is nothing new under the sun. Today, teachers and students of medicine are much concerned with the education of the physician and its continuance throughout the doctor's life. All are agreed of its necessity. These discourses from the past are not only adequate testimony of the beliefs of their authors, but demonstrate their wisdom and enthusiasm for medical education. Great praise is due these colonial physicians whose insight into the need for proper medical education stimulated them to bring the word to the attention of their fellow colonists and urge its acceptance and development.

- **For a bibliography, write Pennsylvania Medicine.**

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The Medical 'Battle' at Gettysburg

HAROLD O. CLOSSON, M.D.

Gettysburg, Pennsylvania

Early in the morning of July 1, 1863, a lone Union sentry on the Chambersburg road west of Gettysburg noticed an unexplained cloud of dust to westward. Bullets issuing from the cloud soon resolved its cause—a rebel attack. The sentry replied in kind and ran to alert his company.

Thus began a battle that was to involve one hundred sixty thousand men—ten thousand of whom would be killed, over thirty thousand wounded. Union and Confederate physicians would soon realize that twenty-four-hour days were too short for all the tasks that needed to be done.

The military battle lasted seventy-two hours, but when the armies departed on July 7, they left behind a medical battle for the physicians—a nightmare situation that would continue for many months.

The day before the clash of the opposing forces, Union General John Buford, foreseeing that the Confederates might occupy Gettysburg, spread his newly-organized cavalry division of four thousand men along the five-mile front. General Heth, thinking that only a reconnoitering detachment was ahead, deployed his eight thousand veteran troops and advanced. Galloping messengers and the sounds of battle quickly brought more units into action, but several hours passed and thousands of casualties occurred before the Confederates realized that they were in contact with the Army of the Potomac.

At about 3 P.M., the Union line was outflanked by the Confederates, who came from the north along the Harrisburg road. This maneuver triggered a scrambled Union retreat through the town, with the southerners in hot pursuit.

The wounded, left behind in the rush, were clustered in churches, public buildings, homes, barns, groves, or open places—any spot away from the flying metal that was tearing men apart. Most of the medical officers stayed with the wounded, since by mutual agreement physicians were not taken prisoner, and could freely conduct their work.

To these physicians, the battle created a medically horrifying situation. The masses of wounded pygmied medical facilities. The Confederates were short of supplies—they had planned to equip themselves along the way. As for the Union forces, a baffling administrative order had kept twenty-five wagonloads of their medical equipment at Frederick, Maryland; most of the ambulances with their emergency-supply boxes had also been held back.

The fighting in the Wheat Field, in the Peach Orchard, in Devil's Den, and on the Round Tops on the second day, combined with Pickett's unimaginable charge on the third, more than tripled the number of wounded. Most of the shattered men somehow arrived at one or another of the 113 emergency stations, where they simply lay down in any unoccupied place.

Triage began where men fell. The Union stretcher corps had been instructed to bring in first the wounded who were most likely to survive. At the medical stations, triage was continued. Those with severe abdominal, head, and chest injuries were, by tradition, doomed to die, therefore they were put aside for the inevitable. Most of the rest were treated on a first-come-first-served basis.

Operating tables—improvised from doors, carpenters' benches, or whatever would serve the purpose—were set up. The injured walked or were carried to one of these "tables," where a cow's horn or other device containing chloroform- or ether-saturated lint was placed over the patient's nose and mouth.

During the brief "admission" period, an appraisal and a decision were made, followed quickly by removal of metal or slivered bone, resection (especially when only a wrist or an elbow was involved), or amputation—performed by a man who only by chance was the patient's regular physician. The age, education, experience, and condition of this physician, along with the instruments available to him, played a part in his choice of therapy.

Although Confederate statistics are scarce, it appears that the South's physicians did less amputating than did the North's. This was due partly to the limited surgical training of the former, and partly to the scarcity of instruments. Each Union surgeon had been supplied with a case containing twelve amputating knives.

Dr. John Billings, in a letter to his wife dated July 6, wrote, "I am utterly exhausted mentally and physically, having been operating day and night. I have been left here in charge of seven hundred wounded, with no supplies." On July 9, he again wrote, "I am covered with blood and am tired out almost completely. I have been operating all day long and have gotten the chief part of the butchering done." Another physician stated in a letter, "I am relieved that the butchering for the day is finished." Surgery, carried out with what seemed to be such ruthless abandon, helped create among the troops a feeling of distrust of the medical department.

Clean wounds were always a surprise and an enigma to physicians grown accustomed to seeing pus. Cleanliness was not part of the Civil War surgeons' technique. Postoperative complications were routine. The mortality from primary surgery was high; because of infection and general patient deterioration, that of secondary surgery was almost 100 percent. One surgeon who had resected two elbows and three wrists wrote, "The wounds granulated and took on a healthy appearance with great and unusual rapidity, which I attributed to the following: they were in the open air, exposed for the first few days to a warm rain, and patients had plenty of good food, and flaxseed poultices were not available."

The control of bleeding was a major problem. Men walked or hobbled great distances with a self- or comrade-applied tourniquet on a mangled arm or leg. Because retrieval of the wounded was inadequate, those who on their own could not control their bleeding died. At operations, finger compression of the large vessels maintained control until it was supplanted with ligatures which were left protruding from wounds and, a few days later, tugged at until they came loose. Capillary bleeding tended to be ignored or to be treated with styptics, notably iron perchloride, which was in every medical pack—and which caused such agony and such anatomy-hiding messes that some physicians began to object to its use.

They were beginning to question, too, the use of poultices, bleeding, and other time-honored procedures, and to question the surgical sacredness of the inside of the head, chest, and abdomen. A long-stagnant period in medicine was drawing to a close.

The northern physicians' intention of treating all the injured with equal concern was not easily put into practice. Confederate wounded often were the last to be picked up, some remaining for three days or more where they had fallen—lying in agony and pleading for help. In a letter dated July 9, Dr. William Watson of Bedford, Pennsylvania, wrote, "I still have a few operations in my own division when I will turn my attention to wounded rebels. There are about one hundred of them in a barn near us in a most distressing condition. Many of them require operating."

Positively psychology played no part in the situation at Gettysburg. One Union quartermaster had stacked a substantial number of coffins beside a road along which men marched to battle. Patients on their way to operating tables walked or were carried past stacks of amputated arms and legs. Fresh troops advanced along roads on which they met wounded men coming back from battle, grim reminders of the fact that injury—or death—waited up ahead.

Women entered early into this scene of misery and stark reality. They brought hope, comfort, dressings, and cleanliness, along with hot soup and "jellied bread." Their very presence worked a bit of magic. A group from Lancaster, Pennsylvania, a band of Sisters of Charity from Emmittsburg, Maryland, and many of the women of Gettysburg, took care of the wounded in homes, churches, and public buildings, doing whatever they could to make amends for the horrors of war.

Other volunteers filled similar needs, the United States Christian Commission responding early with food, supplies, and three hundred workers. The United States Sanitary Commission had stocked supplies at Philadelphia, Washington, and Baltimore, in anticipation of the battle; this organization's wagons followed General Meade's army as it moved northward, and on July 2 was in Gettysburg distributing food and supplies to hospitals. In spite of the seemingly great number of local volunteers, and the additional aid supplied by the various commissions, the medical needs of both armies was overwhelming.

The *Gettysburg Sentinel,* describing the battle, said, "All in all, the Battle of Gettysburg was the grandest of them all." The excitement of marching troops and of flying flags, shells, and gossip may have made it seem so. But on Saturday, July 4, the scene was hardly "grand"—it was one of death, wreck-strewn fields, and a town filled with torn bodies. Some of the wounded were sheltered in wet, manure-floored barns; many were exposed to a five-day rain; and in utter misery were the thousands of untreated wounded who had left the area and were being pitched about in the wagons of General Lee's retreating army.

Early in August, a five-thousand-bed tent-hospital was set up a mile and one-half east of Gettysburg. Patients who had been in makeshift treatment places were moved there, and routine and order soon followed. This hospital functioned until November 14. When the last patients were transferred to city hospitals, Gettysburg was left with its horrible memories, kept alive by the stench from shallowly buried men and horses. The battle defined as "the grandest of them all" was now history.

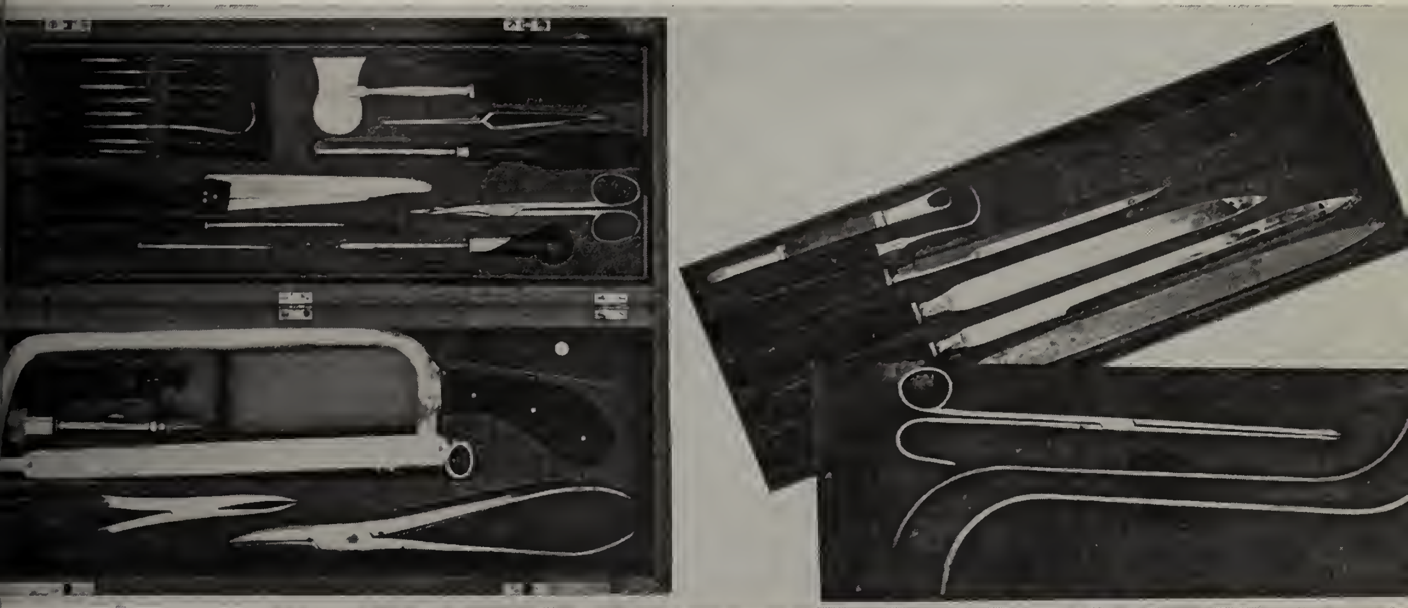

Fig. 1. Field surgical kit used during Civil War. Photo supplied courtesy of the William Penn Memorial Museum, Harrisburg, Pennsylvania

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CTH, or digitalis. Salt restriction is not
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SUMMARY OF

OFFICIAL REPORTS

1966

PENNSYLVANIA MEDICAL SOCIETY
HARRISBURG, PENNSYLVANIA

SUMMARY REPORTS

All items appearing in this special section of Pennsylvania Medicine are summarizations of the 1965-1966 annual reports. Complete annual reports, including the Auditor's Report, are included in the *Official Reports to the House of Delegates* booklet, copies of which are available upon request.

BOARD OF TRUSTEES AND COUNCILORS

Clarence J. McCullough, M.D., Chairman

The 1965-66 Board of Trustees and Councilors held its organizational meeting at Atlantic City last September following the 1964-65 Annual Session. Special meetings were held on November 26 and December 5, 1965, and regularly scheduled meetings were held in January, March, May and August of 1966. A meeting is scheduled to be held in October; significant actions will be reported to the House by supplemental report.

Resolutions of the 1965 House of Delegates

For details concerning resolutions which have been acted upon by the House of Delegates, references are noted in the complete Official Reports booklet.

Committees of the Board

Finance Committee

The Finance Committee met regularly during the year, primarily in conjunction with the Board meetings. The committee prepared the budget for the fiscal year 1966, which was approved by the Board of Trustees.

In 1965 there was a $58,714 surplus in the General Fund. Upon the recommendation of the Finance Committee, the Board of Trustees authorized the transfer of the 1965 Surplus to the Building Fund.

One of the Committee's major tasks was the formulation of an effective plan for financing the cost of the new building.

The Chairman of the Finance Committee has continued the precedent of reviewing the monthly balance sheets at each meeting of the Board as a method of keeping the Trustees informed of income and expenditures.

The Committee again plans to meet with the chairmen of all councils and major committees sometime prior to the Annual Session to discuss the budget requests for 1966.

Benjamin Rush Awards Committee

The Pennsylvania Medical Society presented this year's state Benjamin Rush Awards to Mrs. Sybil Michener of Buck Hill Falls, the nominee of the Monroe County Medical Society, and to the Elizabeth Price Martin League No. 1 of Philadelphia, the nominee of the Philadelphia County Medical Society.

Building Committee

Last July, the Committee recommended to the Board of Trustees that the low bidder, H. B. Alexander and Son, Inc., of Harrisburg, be awarded the building contract at the low bid of $647,700. The Board of Trustees approved the Committee's recommendation. The Board authorized the Committee to spend up to $675,000. The difference between the base bid and the authorized amount served as the Society's contingency fund against unanticipated additional building costs.

On June 8, 1966 the Committee met to formulate plans for the dedication of the building, to consider bids on furniture and equipment and to discuss a plan for landscaping the grounds surrounding the new structure.

The Committee recommended to the Board of Trustees that the dedication of the new building be held in conjunction with the State Dinner at the 1966 Annual Convention in Pittsburgh. This recommendation was subsequently approved by the Board.

Bids on furniture and equipment were extremely competitive. Contracts were awarded to the low bidder in each of the four categories for interior furnishings. The Committee had estimated the cost for this phase of the project at $65,000, a figure established jointly by the Finance Committee and the Building Committee. The Committee learned at the June 8 meeting that the latest calculations indicated approximately $68,000 was available from funded reserve for furniture and equipment replacement plus the estimated sale of the portion of the present equipment which was not practical for use in the new building.

After careful consideration of the equipment requirements, the Committee determined that expenditures for furniture and equipment should not exceed $65,000. This figure was later approved by the Board of Trustees.

Advisory Committee to the Executive Director

At its August, 1965 meeting, the Board of Trustees adopted a recommendation of the Special Membership Communication Study Committee "that the Board institute a review of the functions of the Council on Public Service with respect to its jurisdiction and responsibilities and consider placing all communications under the Council's supervision." Chairman McCullough referred this problem to the Advisory Committee.

After careful deliberation, the Advisory Committee recommended that a Communications Committee be created consisting of the President, the President-Elect, and the Chairman of the Board of Trustees.

Special Committee on Heart Disease, Cancer and Stroke

The Special Committee on Heart Disease, Cancer and Stroke has been following the program it recommended to the 1965 House of Delegates. This called for activities to center around metropolitan area committees in Philadelphia, Harrisburg, and Pittsburgh. Since that time, area committees have been formed and representatives of the Special Committee are serving as advisors to these groups or as part of a committee.

Although the various regions have established areas of coverage, there will be some overlapping. It is quite possible that many counties in Pennsylvania will be a part of two different regional programs. Thus, a heart program could be a part of one regional center and a cancer program based in another.

None of the grants have been approved as yet. Planning is still in the preliminary stages. Because the entire program depends upon receiving funds from the federal government, and since all of the committees are awaiting information, a supplemental report on the activities of this committee will probably be presented to the House of Delegates.

Resolutions 65-20 and 65-28 and a portion of the president's address dealt with the subject of legislation in the area of heart disease, cancer and stroke. The Special Committee has carried out the intent of the president's recommendations and the resolutions.

Significant Actions

Special Meeting with Specialty Group Representatives

At a special meeting, the Board of Trustees authorized a meeting between representatives of the Pennsylvania Medical Society and representatives of the state organizations for anesthesiologists, radiologists, pathologists and physiatrists, as well as with representatives from other specialty groups upon their request. The purpose of the meeting was to discuss methods of billing under P. L. 89-97. The meeting was arranged for December 5, 1965. As a result of the meeting, the Board took the following actions:

1. Directed that the staff send a summary of the actions taken at this special meeting to all county society secretaries and other appropriate persons.

2. Declared the Pennsylvania Medical Society's strong support for the inclusion of anesthesiologists, pathologists, physiatrists and radiologists under Part "B" of the Medicare Act, with the exclusion of certain administrative, educational or investigative functions logically included under Part "A."

3. Reaffirmed the Pennsylvania Medical Society's position that the billing for services of anesthesiologists, pathologists, physiatrists and radiologists be on a fee-for-service basis, and directed that interested parties be apprised of this reaffirmation.

4. Adopted the following motion:

> "Because there is a proportionately small number of candidates preparing for careers in the specialties of anesthesiology, pathology, physiatry and radiology, and, because a primary reason for this dearth of candidates is that billing on a basis of fee-for-service is not a universally established practice, the Pennsylvania Medical Society reaffirms its conviction that the specialties of anesthesiology, pathology, physiatry and radiology be included under Blue Shield plans rather than under Blue Cross or any other administrative agent in the belief that such a development would encourage an increase in the number of practitioners within these specialties."

5. Reaffirmed that every laboratory procedure should have its designated professional fee.

6. Officially recognized the advantage of maximum participation by the public in Part "B" of the Medicare Act and directed that the constituent medical societies and other interested parties be so advised.

7. Supported the concept of direct billing for professional services under Part "B" of the Medicare Act.

8. Directed that the actions of this special meeting of the Board of Trustees be forwarded to the Health Insurance Council and to Blue Shield.

9. Reasserted its strong opposition to the concept of institutions hiring physicians to provide Part "B" services, with the possible consequence that the employer-institutions would bill the carrier for services rendered by such physicians. Motion carried 7 to 1.

Medicare—Cooperation with Blue Shield

At the March 16, 1966 meeting, the Board of Trustees met with representatives of Blue Shield to discuss some of the implications of the administrative responsibilities and the possible role the Society would play in regard to Blue Shield's responsibility as the administrative agent for the federal government's Medicare Program. After careful consideration and at the request of Blue Shield, the Board took the following actions:

1. Approved the use of the Prevailing Fee concept in determining reasonable charges to be paid under Part "B" of Title XVIII of the medicare law.

2. Approved the use of a survey by Blue Shield to establish the usual charges of an individual doctor.

3. Approved the concept of Society co-sponsorship of the above survey.

4. Approved a motion to form appropriate medical review committees in all medical councilor districts.

5. Designated the Council on Medical Service as the unit with which Blue Shield may consult with respect to pertinent administrative details in preparing to fill its role as intermediary for Part "B" of the medicare law.

In May, the Board of Trustees once again examined the Society's administrative responsibilities with regard to medicare which resulted in the following actions:

1. Directed that committees to review medicare claims be set up along Councilor District lines and that the administrative details and arrangements for these meetings be handled by the PMS staff.

2. Approved the concept of paying physicians serving on review committees regarding work done in connection with Part "B" of medicare.

3. Adopted the concept that payment for review committee work on the part of physicians should be made by the carrier (Medical Service Association of Pennsylvania).

4. Determined to endeavor to procure reimbursement for the Society's preparatory cost in connection with Part "B" of medicare.

1967 Annual Session

The Board of Trustees established the official dates of the 1967 Annual Session as September 27-30 at the Sheraton Hotel, Philadelphia.

Proposed Site for the 1971 Convention

The Board of Trustees recommends to the House of Delegates that Philadelphia be selected as the site for the 1971 Annual Session.

Podiatry Suit

The Pennsylvania Medical Society, two of its trustees, and a former trustee were made defendants, with the Medical Service Association, which operates the Blue Shield Plan, and three of its directors, in an action brought on September 14, 1964 in the Court of Common Pleas of Dauphin County by the Pennsylvania Podiatry Association and other individual plaintiffs alleging a conspiracy to interfere with the passage of legislation which would include podiatrists within Blue Shield coverage. The relief sought is an injunction plus damages of $10,000 or more, together with costs. Preliminary Objections to the Complaint, including a demurrer on the ground that the activities alleged are protected under the Pennsylvania and United States Constitutions guaranteeing the free exercise of the right to petition the legislature, were filed on behalf of the Society on October 28, 1964 and argument thereon was heard on June 16, 1965. In January, 1966 the Court sustained the Society's Preliminary Objections and ordered that the Complaint be dismissed; thereafter such decision was appealed to Supreme Court of Pennsylvania. The hearing on such appeal has been listed on the Supreme Court's November calendar and a decision regarding the appeal should be handed down by the end of the year. Counsel for the Society continues to be optimistic as to the outcome of this litigation.

Loss of Dr. Leskin

In April, the Board of Trustees was shocked and grieved at the death of one of its members, Joseph J. Leskin, M.D., Trustee and Councilor of the Fourth District. At its May meeting the Board rose in silent tribute to Dr. Leskin and then adopted a Memorial Resolution.

The Board recommends that the House of Delegates take similar cognizance of Dr. Leskin's service to the Society by House adoption of the Memorial Resolution and that a letter be written to Mrs. Leskin by the President of the Society informing her of the action taken by the House of Delegates.

The Board of Trustees authorized the Chairman to appoint a temporary councilor for the Fourth Councilor District and subsequently Chairman McCullough appointed George A. Rowland, M.D., of Millville to serve in this capacity. Dr. Rowland's interim appointment expires with this session of the House of Delegates. Dr. Leskin's term would have expired in the fall of 1968; consequently the House of Delegates at this session should elect a physician to serve the remainder of Dr. Leskin's term.

Educational and Scientific Trust

In May, the Board of Trustees approved the 1965 Annual Report of the Educational and Scientific Trust.

SECRETARY

Allen W. Cowley, M.D.

During this past year, the Secretary has continued to consult with the administrative staff to the headquarters office concerning the responsibilities of the Secretary's office. This includes the areas of medical defense, medical benevolence, signing of official documents, etc.

The Secretary's office has communicated with many county medical societies regarding grievances submitted to the headquarters office and, in cooperation with legal counsel of the Pennsylvania Medical Society, has provided legal opinions to county medical societies and to individual physicians.

Medical Defense

During 1965, six new applications for medical defense were filed and approved. Of the six applications, two physicians do not carry malpractice insurance. It should be noted that from January 1, 1966 to June 30, 1966, seventeen requests for medical defense applications were received.

During 1965, fourteen cases were closed. Attorney fees for nonmalpractice cases in the amount of $1,191.49 were paid by the State Society. Since the last annual report, the application for medical defense has been revised and provides a more effective mechanism for considering applications.

Currently there are thirty-six medical defense cases in our files.

Judicial Council

At the March meeting of the Board of Trustees, the Judicial Council of the Pennsylvania Medical Society was requested to consider the matter of alleged unethical assessments of hospital medical staffs. It was the opinion of the Judicial Council that, while hospital medical staff assessments in themselves are not unethical, any compulsory medical staff assessments, that is, assessments which if not paid would cause doctors to lose staff privileges, are unethical. The Judicial Council relayed this opinion in the form of a communication to the president of the medical staff of each accredited hospital in Pennsylvania and to the secretary of each component county medical society.

EXECUTIVE DIRECTOR *Lester H. Perry*

The 1965 House of Delegates and the Board of Trustees took a total of 354 actions requiring definite implementation during the past year. All of these actions have been or are in the process of being implemented.

Personnel

By the end of 1966 two members of our staff with a total of sixty-three years of service to the Pennsylvania Medical Society will have retired. Roy Jansen, after thirty-three years of dedicated service, retired from his position as Staff Assistant to the Council on Public Service on April 1, 1966.

The 1966 Annual Session marks the last in a long series of such meetings for Mrs. Miriam Egolf, Executive Secretary of the Woman's Auxiliary, who plans to retire on December 31, 1966 after thirty years of devoted service to both the Society and the Auxiliary.

The contributions made by Mrs. Egolf and Mr. Jansen are quiet testimony to their loyalty to the Society. Working with them has been a pleasure and I know that I speak for their many friends in the membership and on the staff when I express our best wishes for their enjoyment of some well-earned leisure.

Although administrative responsibilities are increasing as Society policy makers respond to the dynamic climate of change, I am gratified to report that our present staff totals forty-one persons—one less than in 1962 and 1963.

Membership

The preparation of dues statements by means of data processing equipment has proved to be of genuine help to the county medical societies as well as to the Pennsylvania Medical Society. For the first time all county medical societies elected to have their 1966 dues statements addressed by the computer, and fifty-eight of the sixty societies requested the complete service which included adding dues amounts and totals.

The substitution of an automated process for the former time-consuming method of preparing dues statements is not yet fully perfected. As we gain experience, new procedures are being introduced to eliminate the minor imperfections of the system. A careful review of the whole process after discussions with various county society secretaries and executive secretaries resulted in a number of refinements which the Membership Department believes will make the operation even more efficient and practical for the county societies.

Each class of membership for 1964 and 1965 appears in Table I, which shows a slight decline in State Society and AMA membership. Active membership in both the American Medical Association and the Pennsylvania Medical Society has actually increased, but a decrease of associate members accounts for the slight reduction in the total membership of both organizations during 1965 as compared to 1964.

TABLE I

	Pennsylvania Medical Society		American Medical Association	
	1964	1965	1964	1965
Active Members				
Paying full dues	**10,691**	**10,720**	**10,351**	**10,424**
Resident	**340**	**310**	**340**	**310**
Senior	**199**	**210**	**297**	**277**
Military	**36**	**32**	**36**	**32**
Totals	**11,266**	**11,272**	**11,024**	**11,043**
Affiliate Members	**11**	**11**		
Associate Members				
Permanent	**875**	**841**		
Temporary	**109**	**98**		
Totals	**984**	**939**	**995**	**950**
Total Membership	**12,261**	**12,222**	**12,019**	**11,993**

Pennsylvania Medicine

The purpose of *Pennsylvania Medicine* is to support and further the objectives of the Pennsylvania Medical Society, to communicate effectively with our members by giving them appropriate information and news concerning Pennsylvania's medical community, and to publish advertisements judged to be of value and interest to the practicing physician.

In 1966 these goals were realized to a considerable degree. Current readership survey results, personal interviews, and conversations with members demonstrate increasing interest in the journal by the membership. This interest is the result of the new format, improved editorial features by well-known physicians, more historical and legal items, and interesting scientific papers. Also of major significance are the "Medical Society News" and "This Month" sections, which are effective due to the expanding interplay of information between the journal office, the various councils, and Society staff members.

Advertising volume appears to be in an upward trend and, coupled with constant efforts to hold operating expenses to a minimum, should assist *Pennsylvania Medicine* in eventually obtaining a reasonable degree of financial independence.

The enthusiasm and activity of the Medical Editor has substantially influenced the overall effectiveness of the journal. He is always available for advice, consultation, and guidance not only with regard to medical questions but in all aspects of journal publication.

Library Service

The Executive Director's report to the House of Delegates last year outlined some of the problems facing the operation of a small library and stated that the objective was to stimulate the staff to reconsider the administration of our library in the light of changing needs and new concepts. It can now be reported that significant changes have taken place in the library service during the past year.

After careful consideration of important information gathered by the staff, the Committee on Archives recommended that the library of the Society be discontinued in favor of providing library service to our members through an agreement with the Milton S. Hershey Medical Center. This recommendation was approved by the Board of Trustees on August 4, 1965.

The arrangement with the Hershey Medical Center has been in operation since January 24, 1966, and all the evidence indicates that the service is effective. The cost of this arrangement represents a considerable reduction in library expense. It also provides a service which potentially has greater depth and scope than the Society could otherwise provide its members even at several times the cost. The net result of this change is that we are providing our members with the library services which they need by utilizing the latest developments in storage and retrieval equipment and methods without capital investment on our part and with relatively little staff time involved.

Headquarters Building

We have continued through the year to follow our normal maintenance pattern in the headquarters building at 230 State Street. No major improvements were made because the Society was engaged in completing a new building in Lemoyne, Pennsylvania, across the Susquehanna River from Harrisburg. Our new headquarters will provide the Society with the much needed additional space and flexibility, which has been acutely lacking at 230 State Street for several years.

Legislative Task Force

Although the Legislative Task Force—composed of key staff members—was created several years ago when the medicare type of legislation came to the forefront, the basic concept involved has proved adaptable to many other legislative and related problems. For example, the Task Force planned and conducted a series of meetings designed to acquaint our members with the regulations governing the implementation of the Medicare Act.

Since the Legislative Task Force was created in 1961, its function has become increasingly important. It provides a mechanism for bringing a wide range of staff abilities and talents to bear on the torrent of state and federal legislation of interest to the medical profession. It also provides the opportunity for key staff members to consult together on legislative strategy and to discuss important administrative regulations promulgated by governmental departments. The Legislative Task Force has repeatedly proved its value by the quality of its recommendations, by its collective ability to anticipate legislative trends, and by its talent for devising effective programs of education on key issues for the benefit of both Society members and the public.

Convention Task Force

Again this year the meld of talents and abilities represented by the staff members who serve on the Convention Task Force were brought to bear on the preparation for the 1966 annual session. The first step the Task Force takes to prepare for the next convention is a backward glance at the previous annual meeting. Out of a careful examination of the last convention come new ideas for improving the next one. These intensive reviews by the Convention Task Force are scheduled shortly after the annual meeting while the problems encountered are still fresh in our minds. New ideas are tested in the crucible of frank discussion and careful assessment. As a result, innovations are adopted which improve the administration of this large and somewhat complicated meeting.

Cooperation with Blue Shield

Originally created to render assistance to the Special Joint Committee which was developing a new Blue Shield plan, the Blue Shield Liaison Task Force continues to meet with the staff from Blue Shield in evaluating the Prevailing Fee Program functioning on a pilot basis in Pennsylvania. Since Blue Shield has been selected as the carrier for Part B of medicare, close liaison has been maintained between the two organizations with regard to the administrative problems involved.

The Board of Trustees has agreed to assist Blue Shield in administering Part B by providing regional review committees to evaluate disputed claims. On May 18, 1966 the Board instructed the administrative staff to execute a memorandum of agreement with Blue Shield to cover reimbursement for our preparatory costs during the "tooling up" period prior to July 1, 1966 and the anticipated administrative costs after that date. On June 9, 1966, a memorandum of agreement was sent to Blue Shield which was forwarded to the Social Security Administration for approval. Although we have not been advised of their decision, review committees are being formed in each councilor district and we are in the process or augmenting the staff of the Council on Medical Service since the responsibility for providing professional guidance to Blue Shield with regard to medicare has been assigned to that Council.

Conference of Secretaries and Executive Secretaries

By action of the Board of Trustees, the conference for executive secretaries was broadened this year to include the elected secretaries of county medical societies. The meeting was held at the Penn Harris Hotel in the afternoon and evening of April 27 and in the morning of April 28, 1966, prior to the 1966 Officers' Conference. The meeting was well attended by both elected and executive secretaries, and the response of the group to the program appeared to justify the Board's decision to increase the scope of this meeting.

Acknowledgement

More than three centuries ago John Donne, poet and theologian, wrote, "No man is an island, entire of itself." His observation has equal validity whether the application is religious or secular. Progress by the Pennsylvania Medical Society depends upon the contributions of many. These contributions are interwoven into a complex fabric of policy action and administration until the collective result towers over the individual contributor, who more often than not remains anonymous. Yet without the necessary contribution by each, the whole structure of policy and program would suffer; progress would be retarded or halted entirely. To each person who makes his own vital and unique contribution to the Society—including the officers and trustees, the committee personnel, the other members who play a salient role in Society affairs, and the administrative staff—I express genuine gratitude both personally and on behalf of the entire membership.

TREASURER

Lester H. Perry

The customary examination of the Society's accounts as of December 31, 1965, was performed by Main, Lafrentz & Co., Certified Public Accountants, and the report of their audit is being submitted to all members of the House of Delegates. It is available to others upon request.

The Society's resources are contained in five separate funds. Four of these funds are earmarked for special purposes and are not available for current operating expenses.

The annual dues of our active members (excluding residents and senior members) for the year 1965 were $75. Of this total, however, only $64 was available to the General Fund for the operating expenses of the Society. By action of the House of Delegates, $11 per member was allocated as follows: $5.00 to the Educational Loan Fund, $3.00 to the Scholarship Fund of the Educational and Scientific Trust, and $3.00 to the Medical Benevolence Fund.

The General Fund is the active functioning account for the day-to-day operation of the Society's various programs. During 1965, income for this account (derived chiefly from dues, advertising in the JOURNAL, commercial exhibits and registration fees at the convention, and investments) amounted to $823,368.

Expenses for 1965 totaled $761,862. With income of $823,368 and expenditures of $761,862, the Society ended the year with a surplus of $61,506 from which $2,800 was spent for furniture and equipment, leaving a net balance of $58,706. This has been transferred by the Board of Trustees to the Building Fund.

The Medical Defense Fund has assets totaling $90,953. The income from investments was sufficient to cover all expenses of this fund in 1965, and no allocation from dues was necessary.

The Medical Benevolence Fund consists of investments and savings totaling $503,651, which yielded $21,193 in income during 1965. This was added to the allotment from dues of $32,557 for use in making payments to beneficiaries. The capital of this fund was increased by contributions totaling $8,596 and repayments from estates of deceased recipients in the amount of $18,511.

The assets of the Contingency Reserve Fund were reduced by $53,305 because the Board of Trustees transferred the land owned by the Society on the West Shore from this fund to the Property and Equipment Fund when construction of the new building was started. There was a slight increase in the redemption value of Series J Bonds, bringing the total assets of the Contingency Reserve Fund to $147,672 as of December 31, 1965.

The Property and Equipment Fund includes land and buildings valued at $289,727, of which $95,065 represents the depreciated value of the property at 230 State Street. The land and the partially completed new building was valued at $194,662 as of December 31, 1965. The balance of $32,927 represents the depreciated value of the furniture and equipment. Reserves for replacement of both the building and the furniture and equipment accounted for $285,321, bringing the total value of the Property and Equipment Fund to $607,975 at the close of the fiscal year.

Financing of New Building

In 1958 the Board of Trustees foresaw the need for a new headquarters building for the Pennsylvania Medical Society. In order to prepare the way for such a project without undue financial hardship, a Replacement Reserve Fund was established for the purpose of funding the depreciation on the Society's existing headquarters building located at 230 State Street, Harrisburg, Pennsylvania.

In 1962 the Board purchased a tract of land on Erford Road near the Taylor By-pass in East Pennsboro Township at a cost of $53,305, which was paid from the Contingency Reserve Fund.

By 1966, when the new building was under construction at an estimated cost of $742,580, the Replacement Reserve Fund totaled $228,218, which was transferred to the Building Fund to defray the cost of the new building. In addition, the surplus totaling $134,550 in the General Fund for the years 1964 and 1965 was also transferred to the Building Fund.

The Society sold a small portion of its property on the West Shore for a net figure of $8,500, which was applied against the cost of the new building. A sales agreement has been executed with the American Red Cross for the purchase of the building at 230 State Street, Harrisburg, for $145,000. After brokerage charges, legal fees, and other expenses, the net to the Society will approximate $135,000. At this writing there is $158,495 in the Contingency Reserve Fund, one-half of which ($79,247) was authorized by the Board of Trustees to be used to defray building costs.

All of the aforementioned funds total $585,515, leaving a balance of approximately $157,065 to be financed. The Cumberland County National Bank and Trust Company, New Cumberland, Pennsylvania, has agreed to provide the Society with long-term financing up to $250,000 at an annual interest rate of five percent.

REPORTS OF INDIVIDUAL COUNCILORS

FIRST COUNCILOR DISTRICT SUMMARY

A. Reynolds Crane, M.D.

The Philadelphia County Medical Society (First Councilor District) has been engaged in numerous activities of its more than fifty committees in the fields of medical and lay education, public service, public health, socio-economic matters, legislation affecting medicine, etc.

In the area of medical education the 30th Annual Post-Graduate Institute of the Society was held in March, 1966 under the direction of Dr. Donald A. Dupler who once again had arranged a timely series of excellent symposia. At this time the fifth annual Pfahler Oration was delivered by Dr. William Dressler of New York City on the subject of Cardiac Auscultation. In October, 1965 Dr. Oliver Cope of Boston delivered the Da Costa Oration speaking on Hyperparathyroidism—Experiences in Diagnosis and Management. Dr. Eugene Pendergrass was given the forty-third annual Strittmater Award in May, 1966 for distinguished service to medicine. Dr. David A. Cooper received a special award from the Philadelphia Tuberculosis and Health Association for his outstanding contributions to the understanding and control of pulmonary diseases. In order to promote effective medical education at the undergraduate and graduate levels a Medical School Dean's Committee has been activated. The Educational and Scientific Trust, through the diligent efforts of Dr. Samuel Radbill, has been developed to receive tax free contributions for educational and scientific projects in the medical field supplementing the activities of the Pfahler Foundation which has contributed aid to needy medical students in the form of grants and loans.

In the field of lay education and public service a Health Fair is to be held at the Philadelphia Civic Center in October, 1966 under the able chairmanship of Dr. Malcolm Miller. The Society's weekly television program "A Question for the Doctor" over WFIL continues to be a popular presentation bringing to the public authentic information on a variety of medical subjects judiciously chosen and graciously and astutely moderated by Dr. James B. Donaldson. A diabetic detection week with free glucose determinations furnished by various pathologists and other physicians was successful in November, 1965. A diet counseling service has been established under the Subcommittee on Nutrition and Metabolism. A program designed for low income and indigent groups for the detection of Chronic Respiratory Diseases to be carried out by the Department of Health was approved as was a Cancer Detection Program by the cytological method at the Mercy-Douglas Hospital. Recognition of the contributions of laymen was given in the presentation of the Benjamin Rush Awards in March to Mrs. E. Lawrence Miller for her volunteer services to patients at the Philadelphia General Hospital and to the Elizabeth Price Martin League, a group of volunteers working at the same institution. The Society's Emergency Medical Service handled 3,874 calls during the year 1965. The Speakers Bureau furnished 150 speakers to various lay and medical groups and who spoke on such diverse subjects as Obesity, Health Home Care for the Sick, Medicare, etc.

In the socio-economic field the problem of professional liability insurance is being intensively studied by the Committee on Medical Economics under Dr. Robert Tyson in light of the fact that some carriers are withdrawing or limiting coverage when physicians are sued and regardless of the merit of the claim. Establishment of an independent insurance program is under consideration. The Professional Liability Consultation Service developed in cooperation with the Philadelphia Bar Association to evaluate alleged malpractice claims has reviewed a few cases each of which was adjudged to be without merit by unanimous agreement of both the lawyer and physician members. Experience does not as yet warrant comment on the effectiveness of the plan. An Operation Healing Committee has been established to keep the membership informed on the implementation of medicare. A Health Insurance Committee reviews hospital admissions where payment has been rejected by Blue Cross and this group will serve as a review board for the evaluation of disputed claims under Plan B of the Medicare Program. The Society has approved in principle the Prevailing Fee Program being developed by Blue Shield.

Philadelphia Medicine continues to be an effective means of disseminating information to the membership.

The Committee on By-Laws is reviewing the classes of membership to the end of providing a clearer definition of each class. The seven branch societies are active and effective in the discussion and implementation of Society policy. The Society membership consists of 2,943 active members, 368 associate members and 435 affiliate members. This represents a slight decrease in the number of active members.

SECOND COUNCILOR DISTRICT SUMMARY

William A. Limberger, M.D.

Another year of activity and achievement can be reported for the six counties of the Second Councilor District acting individually and in cooperation with each other.

In the Fall of 1965 the Societies approved a pilot plan of the Pennsylvania Blue Shield to negotiate a contract with the Doehler-Jarvis Company of Pottstown on a "Usual and Customary Fee" basis.

Two joint meetings of the officers of the county medical societies of the First and Second Councilor Districts were held during the year to discuss problems of mutual interest.

The Delaware and Montgomery County Societies cooperated in having April as "Immunization Month" with combined efforts on publicity.

The Second Councilor District Review Committee held two meetings, reviewing cases sent to it by Blue Shield and commercial insurance companies.

Two meetings of the Councilor District were held during the year. The first meeting immediately preceded the opening session of the House of Delegates in Atlantic City. The spring dinner meeting was held at the Colonial Motor Lodge, Denver, Pennsylvania on May 7, 1966.

THIRD COUNCILOR DISTRICT SUMMARY

Joseph A. Walsh, M.D.

The activities of the five county societies comprising the Third Councilor District have been many and varied this past year. The following is a summary of participation in several project areas.

Informational meetings were held throughout the District which have proven themselves helpful in clarifying the many aspects of the Medicare Program. Largely educational in nature, these meetings are the primary reasons for the relatively smooth operation of medicare in this District.

There is a continuing stress upon furthering medical education among all of the county society members. An equally important area has been the emphasis placed on the necessity of a deeper involvement in community organizations, particularly in health and welfare fields, by all members of the District. Representatives of the Lackawanna County Medical Society are actively serving on a committee for a community health and welfare agency survey which it is hoped will lead to a coordination of programs with a resulting elimination of duplication of services. Extremely successful tetanus immunization programs were sponsored by the Monroe County Medical Society and the Wayne-Pike County Medical Society. Future tetanus immunization clinics are scheduled for the latter part of the year.

As a result of the Monroe nomination for the State Benjamin Rush Award for 1966, Mrs. Sybil Michener was selected as a state winner of the award. She was chosen for her many years of activity which produced substantial financial returns used to purchase cancer-detection equipment.

FOURTH COUNCILOR DISTRICT SUMMARY

George A. Rowland, M.D.

In 1966 the Fourth Councilor District, like the rest of medicine, has been disturbed by the problem of adjusting to the initiation of medicare. Like other physicians and good Americans they have accepted the decision and have made arrangements to cooperate, but very few are optimistic about the results.

In addition to informal discussions among doctors, many regular county medical society meetings have been concerned with the socio-economics of medicine. Now that the fact of medicare is becoming more familiar, the shadow of heart disease, cancer and stroke legislation is beginning to be recognized. Just what this program will do with its infinitely greater potential for change in American medicine no one is prepared to say, but the intimations are all about us.

All of the four societies in this district have maintained relatively normal programs unchanged in the stress of national and world events. Scientific programs have been presented regularly and social events have occurred as in the past. There has been no major issue affecting the medical profession of the district on a large scale.

FIFTH COUNCILOR DISTRICT SUMMARY

David S. Masland, M.D.

Dauphin County Medical Society has provided volunteer physicians who administered DPT vaccine to the first grade pupils of the Harrisburg public and parochial schools in the Fall of 1965. The Society plans to continue this program for the following year. The county society has approved a Planned Parenthood Committee as proposed by the Commission on Economic Opportunities of the Tri-County Welfare Council. They have sent representatives to the American Medical Association Legal Conference for medical society representatives in Chicago and to the annual meeting of the President's Committee on Employment of the Handicapped, in Washington, D.C. in April, 1965. The Dauphin County Medical Society represented the Pennsylvania Medical Society and presented the State Society's $500 Science Fair scholarship award to Frank R. Rudy of Harrisburg. A large number of the individual members of this society have been very active in State Society business. Finally, along with Cumberland County, the Dauphin County Medical Society is planning a joint centennial banquet, scheduled for Thursday, October 6, 1966 in Harrisburg, as well as a centennial newspaper edition planned for distribution by the *Patriot News,* Sunday, October 2, 1966.

The Adams County Medical Society has followed the lead of Dr. Richard Kern in his address of last year in which he suggested that recruitment committees be active in promoting medicine as a career. At the October meeting the clergy of Adams County were guests of the Adams County Medical Society and a program on medicine and religion was presented. At the June meeting the society had fifteen members of the Board of Directors of the Adams County Mental Health Association as their guests and preliminary steps were taken toward a mental health clinic in Gettysburg. Finally, Adams County Society along with Wills Eye Hospital has established a satellite eye clinic which is located in the Annie Warner Hospital, under the guidance and control of the Wills Eye Hospital in Philadelphia.

Franklin County Medical Society's projects have been limited chiefly to the economic areas throughout the past year and include a contract with the Department of Health for the care of the migrant workers in this area. They have, in addition, contracted with the Amalgamated Clothing Workers for yearly physical examinations.

Cumberland County has limited most of its activities this past year to carrying out local health projects. They have instituted and are planning to carry out influenza immunization programs throughout the industries in the area. One of the members of the Cumberland County Society, Dr. H. Robert Davis, was the first Pennsylvania physician to volunteer for Project Viet Nam. He spent two months in Viet Nam and has spoken to the county society and numerous other groups concerning his work there. We feel that this physician, who is a member of our House of Delegates, deserves a special commendation from his own society and the Pennsylvania Medical Society.

SIXTH COUNCILOR DISTRICT SUMMARY

H. Thompson Dale, M.D.

A special Councilor District meeting was held on June 15, 1966 to arrange for the formation of a review committee for our District. Richard L. Sloan of our State office attended this meeting. Huntingdon, Mifflin-Juniata and Centre County Societies were represented by two men each.

Generally matters are running smoothly in the Sixth Councilor District and there are no malpractice suits to be dealt with.

The Blair County Medical Society again sponsored excellent postgraduate seminars with the cooperation of the Jefferson Medical College and Penn State University Extension Services. The Centre County Medical Society gained four new members but there was also one death. For the tenth consecutive year, Penn State senior pre-medical students were entertained at the February meeting. Thirty-nine students and their Dean attended.

Centre County is in the process of establishing a Centre County Medical Society Foundation, a charitable trust to aid charitable, scientific, educational and religious causes.

At the December meeting of the Clearfield Medical Society, the Benjamin Rush Awards were made. This county society is doing its usual excellent job.

The Mifflin-Juniata Society has been an active two-county society throughout the year.

The Huntingdon Society is very active and proud that State Society president, Dr. William B. West, is one of their members. Mr. John Rineman, Assistant Executive Director of our State Society, was present at our June, 1966 meeting where he outlined the operation of our State Society office and discussed several areas of activity planned for the future.

All Society members are urged to read the revised and excellent State journal. The summary of each Board of Trustees' meeting is published in the journal about one month after each meeting.

SEVENTH COUNCILOR DISTRICT SUMMARY

Robert S. Sanford, M.D.

Throughout the past year the county societies of the Seventh Councilor District have continued to show active participation in local and State Society activities. With the exception of Lycoming County, all of the component county societies are small in size; yet each county society member shows an excellent interest in the functions of his own society and each shows some active participation in functions at the State level. This trend of participation is gratifying in the presence of the fact that there have been no disturbing Councilor District problems from any of the seven counties represented.

It is felt that the members throughout the Councilor District have been highly interested in cooperating with the Medicare Program as it develops. This is evidenced by the Councilor personally seeing many Councilor District members at the regional medicare instructive sessions. The trends of the times are going to present much confusion and work for all members of the medical profession and all members in positions of responsibility. For this reason all members are urged to be patient and open minded that we may be united as Government interference of medicine progresses. It is by continued and interested participation in the activities of the County and State Societies that a better understanding of the problems arising will be developed.

EIGHTH COUNCILOR DISTRICT SUMMARY

James A. Biggins, M.D.

Each county in the Eighth Councilor District has nominated two members to a Medical Care Coordinating Committee which held an organizational meeting in Meadville in April. A preliminary meeting was held in November with representatives from each county in the District invited in an effort to acquaint all representatives with the need for such a committee. Each representative was urged to have his respective county pass a motion approving the principle of "usual, customary and reasonable fees," which was done.

John Tredway, M.D. and John Fust, M.D. were named to the Medical Care Coordinating Committee from Erie County. A regional seminar on Disaster Medicine was held in May. In addition; the Erie County Sabin Scholarship Fund Committee met recently and awarded $2,700 to eleven applicants for scholarship funds. Erie County, under the leadership of Carl Lechner, M.D., has initiated a movement for the formation of a regional hospital planning board. This is still in the planning stages, but hopes are for a functional organization in the near future.

The Warren County Medical Society has formed an Executive Committee to handle the regular business of the Society prior to the scheduled monthly meetings. New By-laws for the County Society were formulated during the past year.

Members of the McKean County Medical Society have represented the Society at meetings concerning medicare, national disaster and the Keogh Plan. Harrison J. McGhee, M.D., of Kane, was presented a Fifty-year Award this past year.

Several outstanding programs were enjoyed by the members of the Crawford County Medical Society this year. Programs included a joint meeting with the ministers of the area; a joint meeting with the Bar Association, at which time the problem of the physician's role in court testimony and the problem of physicians as witnesses in court were discussed; a meeting, open to the public, with an attendance of approximately 250 persons, and featuring Willem Kolff, M.D., of Cleveland, the physician who invented the artificial kidney and is now working on an artificial heart—this meeting was also attended by those pre-medical students from Allegheny College who have been accepted for the coming term. Plans are being made for a tetanus-immunization program to be held in the Fall covering all of Crawford County. Plans for a county-wide diabetes-detection program have also been proposed.

The Mercer County Medical Society sponsored a graduate nurse to the Pennsylvania Community School Health Education Workshops at Slippery Rock State College. To increase and further our public relations, the Society broadcast thirteen 30-minute programs titled "Mirror to the Mind."

NINTH COUNCILOR DISTRICT SUMMARY

Cyrus B. Slease, M.D

The six county societies of the Ninth District are active. All have regular meetings with excellent scientific and social programs.

One county secretary has visited the State Society headquarters in accordance with the Visitation Program established last year. He is of the opinion that this was a day well spent.

A dinner meeting of the presidents and secretaries of the component societies was held on June 23. Five of the six counties were represented, and, in addititon, Mr. Richard Sloan of the State Society Administrative Staff, and myself, were present. The subject of this meeting was the establishment of a review committee to evaluate contested claims for payment of fees arising as a result of the Medicare Program. In this district, with its geographical spread and lack of large medical centers, it is difficult to anticipate the practical needs of such a committee. A plan has been worked out that will suffice for the present but may have to be amended later as the need arises.

The representatives of the component societies are in agreement that we must have some means of handling these problems if and when they occur, and it is felt that the committee will be ready to help the district members when required.

TENTH COUNCILOR DISTRICT SUMMARY

John S. Donaldson, M.D.

In order to attempt an improvement in communications between the Pennsylvania Medical Society and all the members of each County Society of the 10th Councilor District, this Counselor has provided summaries of all the important actions of the State Medical Society Board of Trustees and other actions of particular interest to each County Society secretary. It is hoped that the secretary has or will then further edit the summary and pass on pertinent information to his members through his County Society Bulletin.

Free glaucoma tests were given in all the local hospitals on September 14 and 15, 1965 sponsored by the Beaver County Association for the Blind, Beaver County Medical Society and the United Funds. Many of our doctors have been talking to different groups on the subjects of tobacco, cancer, internal medicine and dermatology. A new program, "Reach to Recovery," has been started by the Beaver County Cancer Society. The purpose is to provide encouragement for radical mastectomy patients and is subject to request by the family physician. Doctor George M. Durschinger, Jr., of Rochester, was chosen as "Practitioner of the Year" and two doctors received the 50-Year Awards, Doctor Ernest Aten of Ambridge and Doctor P. F. Martsolf of New Brighton.

The Beaver County Medical Advisory Board to the Beaver County Home and Hospital has been very active during the past year. An EENT and Chiropody room have been completed, new X-Ray equipment has been installed and doctors are available to make examinations of all types. Another of the doctors has been appointed to the medical staff.

A first for Beaver County has just reached completion. A Health-O-Rama was held in Baden on May 26 through 29, sponsored by the United Funds, in cooperation with the Medical Society, Beaver County Commissioners and various health agencies. Over 25,000 free health screening tests were given.

The Westmoreland County Medical Society has had a year of considerable activity which included ten excellent scientific meetings, climaxed by the annual May Clinic and a combined meeting in June with the Indiana County Medical Society.

Another county man was recipient of $600.00 from the Society Scholarship Fund. This brings the total to three medical students being assisted through the fund.

In cooperation with the Pennsylvania Department of Health, the Lawrence County Medical Society held a Diabetic Screening Program in the fall of 1965, and also proposed a Venereal Disease Education Program in the Lawrence County Public Schools.

With the instigation of a local Anti-Poverty Program, it was felt that a Medical Advisory Committee from the Lawrence County Medical Society to the Anti-Poverty Board would be helpful in the coordination of all health programs under the Anti-Poverty Program. Consequently the Medical Advisory Committee was appointed and accepted by the Anti-Poverty Board.

Currently, there are four students receiving funds from the Lawrence County Student Loan Fund.

Mr. William A. Challener, Jr., who along with his father acted as legal counsel for the State Medical Society and the County Medical Societies, was presented with a plaque in appreciation of his forty years of service to the Allegheny County Medical Society.

The Health Research and Services Foundation, in cooperation with the Allegheny County Medical Society and the Allegheny County Health Department sponsored four Health-O-Ramas in the county in September and October, 1965 and April and May, 1966. Approximately 15,000-20,000 people were in attendance at each Health-O-Rama, of which 10,000-15,000 actually received the various tests offered.

The Utilization Project and the Medical Care Coordinating Committee continue to provide outstanding service and leadership in the entire district. The Tenth Councilor District is proud to present to you your new President—J. Everett McClenahan, M.D.

ELEVENTH COUNCILOR DISTRICT SUMMARY

Clarence J. McCullough, M.D.

The component societies of the Eleventh Councilor District report that although the past year has been a rather quiet one, membership in the societies has not decreased and the scientific sessions have been well attended.

Washington County reports concerning their continuing program of scholarship loans for students in the medical and nursing fields, and the granting of scholarship loans to three medical students who will enter Temple University in the fall. Scholarship loans were also granted to two nursing students. Washington County was honored by the presentation of a four year tuition scholarship to Miss Sandra E. Briggs by the Educational Fund of the Pennsylvania Medical Society. Miss Briggs is the first woman to receive a scholarship from this source.

Fayette County reports that they are setting up a somewhat similar scholarship loan program for their county but the details are not complete at this time.

Somerset County has developed a unique medical library usage program by which high school students are permitted to borrow medical books and journals from hospital libraries for background research.

Cambria County reports that their scientific programs have been of excellent caliber during the past year and have been well attended.

TWELFTH COUNCILOR DISTRICT SUMMARY

Park M. Horton, M.D.

The Luzerne Society has a very active and progressive Board of Directors which meets the first Wednesday of each month, and has made many important contributions to the welfare of the medical profession of Luzerne County during the past year. These include: (1) publishing of a Relative Value Study; (2) meetings with Blue Cross and Blue Shield regarding medicare; (3) sponsoring and participating in an ambulance attendant's training course, and (4) establish a Professional Services Bureau which is to be housed in the Society Building as a separate entity. A schedule of implementing the establishment of the Bureau has been adopted with a target date of this year for the answering service and next year for the implementation of a collection service.

The parent society and the Hazleton Branch held their annual meeting on January 22, 1966. The individual Benjamin Rush Award was presented to Herbert N. Oliver, Jr., D.D.S., and the Group Award was presented to The Catholic Youth Center. A fifty year plaque was presented to David R. Morgan, M.D.

The Bradford County Society has a very active society. In December 1965, this society held a joint meeting with The Bradford County Bar Association. At their annual meeting, Ralph B. Winston, M.D., was installed as president, succeeding Charles Wolfe, M.D. In April, 1966 the Bradford County Society with the Bradford County Cancer Society conducted a Cancer Institute which consisted of an afternoon and evening meeting. On April 13, 1966, many members of the Bradford County Society participated in the annual meeting of the Interns and Residents Association of the Guthrie Clinic at Robert Packer Hospital. The meeting was presided over by Harry V. Armitage, M.D., chairman of the Council on Medical Service of the Pennsylvania Medical Society. The annual Guthrie Oration was presented by Isador Ravdin, M.D. In the evening, James Z. Appel, M.D., president of the AMA, spoke on **Government and Medicine.**

The Susquehanna County Medical Society has twelve active members. The activities of this society during the past year have been mostly concerned with routine medical society business, keeping its membership informed of State Society activities, and the impact of medicare on the profession and the public. At the annual meeting in January, Edgar H. Lutz, M.D. succeeded Robert Shelly, M.D., as president.

The Wyoming County Society has ten active members. It held six meetings during the year with 75 percent average attendance. William J. Llewellyn, M.D., succeeded Arthur B. Davenport, M.D. as president. Although this society is small numerically it is very active and provides its members with both scientific and organizational information.

A Twelfth Councilor District meeting was held September 21, 1965 in Atlantic City. There were no district problems presented at this meeting. Those in attendance were made aware of a proposal that the Councilor, with a member of the Pennsylvania Medical Society Staff, present a program for each component society sometime during the next year.

On June 5, 1966 a Councilor District meeting was held in Tunkhannock, Pa. Mr. Richard L. Sloan of the State Society Staff presented the mechanism for implementing the Board of Trustees action of March 16, 1966 providing for the establishment of Councilor District Review Committees.

During the past year, the District Councilor chaired a Special Committee of the Board of Trustees, and also served as a member of the Finance Committee and the Benjamin Rush Award Committee of the Society. He was Board Representative on the Officers Conference Committee: also a Trustee of the Educational and Scientific Trust of the Pennsylvania Medical Society.

SUMMARY REPORTS OF STANDING COMMITTEES

COMMITTEE ON AID TO EDUCATION

One hundred twenty-nine students were financially assisted with their education in twenty-eight colleges and universities during the 1965-66 school year with more than one hundred thousand dollars made available to them by the members of the Pennsylvania Medical Society. Sixteen of these students were recipients of full tuition medical scholarships amounting to $23,059, while an additional sixteen students, who are children of physician members, received loans of $11,735, and ninety-seven medical students were loaned $65,236.

It is the recommendation of the committee that the $8.00 allocation from the annual assessment be continued in 1967, with $5.00 being used for the loan program and $3.00 for the scholarship program.

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

The committee held one meeting during the past year; in January, 1966 in Harrisburg. The chairman has been in contact with the president and the president-elect of the Woman's Auxiliary and when necessary has conducted a mail vote by the committee.

The president and president-elect of the Auxiliary attended meetings of the State Society's Councils on Public Service and Governmental Relations.

International Health Activities continued to increase in interest and much material was accumulated by the counties again this year.

The Medical Student Recruitment Program has created much interest this year. The Auxiliary has assisted in the meetings held at eighty-two high schools in twenty-two counties, and six clubs have been formed as of May, with more scheduled to receive charters next Fall.

Contributions have continued to be made to the Educational Fund of the Educational and Scientific Trust, the Medical Benevolence Fund and the American Medical Association Education and Research Foundation.

The membership of the fifty-six organized auxiliaries is 5,405, including twenty-six members-at-large, of which total 494 are new members.

COMMITTEE ON RELATIONSHIPS WITH ALLIED PROFESSIONS

The Committee on Relationships with Allied Professions has held several meetings during the year with representatives of the pharmaceutical manufacturing industry. The purpose of these meetings has been to consider their declining interest and participation in the scientific programs. The Committee has discussed the changing concept of the educational techniques used by the State Society in the conduct of their scientific programs. In all probability, the Committee will be a party in discussing this problem at the national level with other state society representatives as well as with representatives of the entire pharmaceutical manufacturing industry.

The Committee also discussed and favorably recommended to the Board of Trustees the adoption of a drug formulary for the Department of Public Welfare. The formulary, when issued by the Department of Public Welfare, should assist in cost-cutting procedures to the Department as well as a speed-up of payment to physicians. The formulary does not require physicians to abdicate their prerogative to prescribe those drugs which are judged best for their patients.

COMMITTEE ON CONVENTION PROGRAM

The Committee on Convention Program believes the teaching institute type of program is the most attractive for Pennsylvania Medical Society members and should be keyed to the family practitioner. The program of such an institute should be the highest quality possible, utilizing Pennsylvania medical school faculties to the utmost. In addition, specialty societies should be encouraged to contribute to the program by providing prominent physicians in their respective specialties. A teaching institute of excellent reputation will automatically improve attendance. When attendance has improved, the scientific portion of the Annual Session will be able to stand on its own and no longer conflict with the business sessions. It is hoped that the Institute may become self-supporting, thus eliminating the problem of requiring adequate facilities for commercial exhibits.

The 1966 Convention Program is a test ground which will determine whether or not The Pennsylvania Medical Society will continue the scientific portion of its Annual Session. Preliminary indications are that the 1966 Convention will be a success.

COMMITTEE ON MEDICAL BENEVOLENCE

Fifty-six individuals, including thirteen physicians, were given assistance toward their living expenses from the Medical Benevolence Fund in 1965. This assistance, which is available as a membership benefit, amounted to $49,612, of which $32,557 was contributed by the allocation of $3.00 from the annual assessment of all active members of the Society.

CONSTITUTION AND BY-LAWS

The Committee reviewed both the Model By-laws for a Pennsylvania County Medical Society and the Constitution and By-laws of the State Society. Changes were made in the Model By-laws to bring them up-to-date and copies of the revised Model By-laws will be distributed to all component county societies so that their by-laws may be revised accordingly. Amendments to the State Society Constitution and By-laws have been prepared which would change the delegate apportionment date from March 31 to December 31—a date when county society membership would be at its peak.

COMMITTEE ON OBJECTIVES

In its Annual Report to the House of Delegates the Committee on Objectives made the following recommendations:

1. That the Society create a special membership category for which full-time medical school teachers holding Ph.D. degrees would be eligible. The committee wishes to stress that this membership category should not be honorary in nature but designed so that a member in this category can actively participate in the programs of this Society, serve on state and county medical society committees and councils, be elected to some offices and generally be permitted to play a positive role in the affairs of this Society.

    a. That special dues—far less than the customary dues for active members—be adopted for house officers of hospitals.

    b. That county medical societies encourage the young physicians to assume an active share in the work of the county society by assigning leading members of the county medical society to serve in a "big brother" capacity to particular interns and residents in the county. On the State level, the committee recommends that the president of the Pennsylvania Medical Society consider the possibility of appointing a certain percentage of interns and residents to the councils and committees of the Society in an effort to groom tomorrow's leadership and to create a better understanding of the Society's programs and principles among young physicians.

2. The committee encourages the Society to maintain an offensive rather than a defensive stance, particularly in the area of the federal government's interest in increasing its influence on the shape and direction of medical care.

3. The committee recommends that the Pennsylvania Medical Society encourage medical schools to establish a required course in socioeconomic medicine. The committee envisions these courses encompassing not only socioeconomics but ethics and an introduction to the purposes of organized medicine, basic principles of management, as well as to the "human side" of the practice of medicine.

4. The committee discovered the greatest "bugaboo" seems to be communications. The committee believes that the best way to communicate and convince is to get as many members as possible involved in the actual work of the Society. But the success of this tactic is contingent upon the member's acceptance of the responsibility when it is offered to him.

5. The committee also became aware of some criticism about *Pennsylvania Medicine* as a scientific publication. The committee views with approval *Pennsylvania Medicine's* increasing effectiveness as a membership communications tool, and its recognition of the fact that it does not have the resources to compete on a scientific basis with the national medical journals. The committee recommends that the House of Delegates encourage *Pennsylvania Medicine* to continue its efforts to become a more effective membership magazine.

SUMMARY REPORTS OF SPECIAL COMMITTEES

COMMITTEE ON DISCIPLINE

During the past year the Committee on Discipline held two meetings. Another meeting is scheduled for early September for the purpose of developing a more detailed outline of its future responsibilities.

The Committee continues its liaison with the State Board of Medical Education and Licensure.

Committee members were available to attend various county medical society meetings to discuss disciplinary problems.

Cases involving violations of the Code of Medical Ethics were considered by the Committee.

The Committee members participated in the AMA sponsored First National Congress on Medical Ethics held in Chicago in March.

COMMITTEE TO STUDY COMMITTEES AND COMMISSIONS

This special committee recommends that the special Committee on General Practice be continued with its efforts directed toward two specific studies: (1) reasons why medical students choose a particular type of medical practice; and (2) determination of patterns of physician specialization to develop ideal patterns of physician distribution and practice. As during the past year, this committee and the Commission on Rural Health should continue close liaison.

The committee also recommends that the Commission on Hospital Relations be continued and feels that there is need to have aggressive programs. All county medical societies should be informed that there is a commission at the State level that can assist them when conflicts arise between physicians and hospital boards or the hospital administration.

The committee takes special note of the work of the Committee on Aid to Education, which assumed broader responsibilities, and the reorganized Committee on Objectives.

COMMITTEE TO STUDY RELATIONS BETWEEN MEDICINE AND OSTEOPATHY

This Committee is still under the mandate of the 1962-1963 actions of the House. The 1962 action approved consultation between Doctors of Medicine and Doctors of Osteopathy, and also suggested that Doctors of Osteopathy be invited to attend postgraduate educational programs conducted by medical organizations. In addition, the House at that time approved a recommended procedure to bring about the merger of the Medical and Osteopathic professions in Pennsylvania, dependent upon the Philadelphia College of Osteopathy's seeking accreditation as a medical college. The 1963 House approved a recommendation that fully-licensed Doctors of Osteopathy be admitted to the hospital courtesy staffs in Pennsylvania under the limitation approved by the Joint Commission on Accreditation of Hospitals and the Council on Medical Education and Hospitals of the American Medical Association. The Committee reports that so far representatives of the Osteopathic profession in Pennsylvania have been unwilling to discuss these matters, and that it continues on a stand by basis.

COMMITTEE ON MEDICINE AND RELIGION

In the past year this Committee has been more than encouraged by the enthusiastic response to its program by county society leaders. The Committee has participated in the program of the Rural Health Conference in Harrisburg, at which time it was explained to rural health leaders that greater dialogue is needed between medicine and the ministry if the whole man is to be treated adequately in the distresses of life today. The Committee shared in a series of workshops for lay visitors to the homebound and elderly ill, in conjunction with the Methodist Church in the Central Pennsylvania area and felt that this represents a good start in a field that needs much searching.

The Committee has available for any members' information copies of the Medicine and Religion Newsletter which reviews the activities of county societies across the State.

We cannot place in numbers specific accomplishments but we do feel that in the society in which we live our function to stimulate closer relationship at a county level for physicians and clergymen is a most vital area of medicine which should be further illuminated and further explored.

COMMITTEE ON GENERAL PRACTICE

Following the 1965 Annual Sessions, the Committee on General Practice made two studies: (1) career decisions of medical students and career satisfactions of medical practitioners; and (2) medical service areas of Pennsylvania.

Initially, the Committee was of the opinion that general information on career decisions might not apply to Pennsylvania. William G. Mather, Ph.D., a sociologist from the Pennsylvania State University, was asked to serve as consultant to the committee on this matter. He studied the development of a survey in relation to cost, personnel, sources of funds and information already available.

A review of the current literature and a tentative approach to the medical schools for information convinced Dr. Mather that the cost of making a survey in Pennsylvania would be excessive for the values received. He recommended to the Committee that it utilize time, effort and money in other ways. He suggested a program involving more direct contacts with the faculties of medical schools. It was noted that the Council on Public Service is attempting to carry out this very type of program. The Committee agreed and the survey has been tabled.

The Committee has continued to be keenly interested in patterns of medical service and is making a study of medical service areas in the state. Dr. Mather has been helpful in the initial phases of this study and the Committee is now discussing other information with Ernest M. Kuhinka, Ph.D., a sociologist employed by the Pennsylvania Department of Public Welfare.

The subject of group practice in relation to the availability of medical care will be considered with the medical service area study. The Committee has recommended that the State Society recognize the steady trend towards the formation of group practices and that it develop a program relating to this matter. A possible advisory committee on group practice was suggested.

The possible need to increase medical care in isolated geographical areas was explored by president William B. West in his 1965 address to the House of Delegates. This matter was studied by the Committee in connection with other new concepts of medical care and treatment including medical outpost stations, special communication networks, air transportation systems, traveling medical health teams, traveling laboratories and detection units, and other methods. These will be examined as part of the medical service survey.

The Committee, with the approval of the Board of Trustees, has outlined its primary interests as a study group rather than as an action and implementing body.

SUMMARY REPORTS OF ADMINISTRATIVE COUNCILS

COUNCIL ON GOVERNMENTAL RELATIONS

The Council on Governmental Relations has had meetings throughout the year to discuss legislation, both state and federal. The Council lists in its annual report important legislation passed at the 89th Session of Congress. This Congress has been dubbed the "Health Congress," and after a review of these laws, it can readily be seen how important it is for all physicians to be versed in legislative activities.

The Council reports on those actions referred to it by the 1965 House of Delegates, including the compulsory reporting of immunization status for poliomyelitis, constitutional action to abolish the office of Coroner, the desirability of the State Medical Society's taking positions on major state and federal legislation other than that directly affecting health, and resolutions on hospital construction, medical library assistance, programs for medical care, and others.

The Council also considered control of psychotoxic drugs and the transfer of governmental administrative functions from one department to the other.

The Council has discussed in its report the licensing of certain paramedical personnel, the new "Dog Law of 1965," possible amendments to the Medical Practice Act, the Interprofessional Code of Cooperation between Physicians and Attorneys, and finally, the necessity of the Pennsylvania Medical Society's counseling with the various departments of government concerning the implementation of medical care programs.

COUNCIL ON MEDICAL SERVICE

This report summarizes the most significant actions of the Council on Medical Service during the past year.

The Council:

Provided professional guidance and advice to Pennsylvania Blue Shield in the development of the Prevailing Fee Plan.

Provided consultation to Blue Shield with respect to administrative details as they prepared to fulfill their role as intermediary for Part B, Title 18 of the new medicare law.

Assisted Blue Shield in the co-sponsored State-wide Fee Survey designed to establish usual charges.

Provided professional guidance and administrative assistance to Councilor Districts establishing Review Committees.

Provided assistance to Pennsylvania Blue Shield in the adaptation of the prevailing fee concept for use under Part B, Title 18.

Strengthened the Society's liaison with the five Blue Cross Plans in Pennsylvania as they prepared to fulfill their role as the major intermediaries for Part A, Title 18.

Distributed the Model Utilization Review Plan prepared by the Hospital Utilization Project of the Allegheny County Medical Society Foundation to the medical staffs and administration of every hospital in Pennsylvania.

At the request of the Board of Trustees, established liaison with the Department of Public Welfare and rendered professional advice to that Department as they developed a certification program for Pennsylvania hospitals seeking approval for participation in Part A, Title 18.

Approved a Tenth Councilor District Pilot Program designed to provide for the Utilization Review for extended care facilities in accordance with the requirements of Part A, Title 18.

Recommended rejection of a Veterans' Administration proposal to establish a State-wide fixed fee schedule for Pennsylvania and requested the permission of the Board of Trustees to seek a contract which would provide payment based on "prevailing fees."

Opened negotiations with the Office of Dependents' Medical Care to replace the present fee schedule (Plan

B, Blue Shield) with a contract based on the prevailing fee concept.

Established liaison with the Sub-committee on Fees for Medical Care of the Governor's Council on Human Services of the Commonwealth.

Initiated discussions with representatives of the Bureau of Vocational Rehabilitation of the Department of Labor and Industry of Pennsylvania in an effort to seek improved fee schedules.

Continued close surveillance over Society-endorsed insurance programs.

Obtained a substantial premium reduction for physician policy holders of the Society's endorsed Accident and Health Income Protection Plan which becomes effective October 15, 1966.

Initiated a study in depth of the nature, scope and availability of malpractice insurance coverage for Pennsylvania physicians.

Recommended that the Board of Trustees approve the formation of a new Commission on Health Facility Planning to function under the Council on Medical Service. The new Commission will be responsible for promoting the development of area-wide voluntary hospital planning groups in Pennsylvania.

Initiated discussions with the Insurance Commissioner of Pennsylvania in carrying out the intent of Resolution 65-14 adopted by the House of Delegates calling for a study of the feasibility of establishing minimum standards of hospital insurance below which no insurance contract would be sold in Pennsylvania.

Considered recommendations made by the Commission on Hospital Relations relative to Resolution 65-22 which calls for increased State subsidies for the training of student nurses and Resolution 65-21 which requests legislation to provide stipends for intern programs in Pennsylvania.

COUNCIL ON PUBLIC SERVICE

The Council on Public Service and its Commissions on Disaster Medical Care and Rural Health are in a year of considerable progress believed to be significant in at least several instances. Progress is one of the results of a continuing reappraisal of activities carried out at every meeting by the Council and its Commissions.

One communications approach put into action this year by the Council staff is unique in Pennsylvania and perhaps in the nation. Called "Instant News," it is an entirely new method of providing the state's radio stations with fast, accurate information on health education and socio-economic topics at a time when more and more stations are in a position to increase their use of such material. The number of stations using the service, which started on a full-time basis in April, is increasing constantly.

A weekly five-minute health news radio show, which credits the local station and the local county medical society, is being produced by the staff for an unprecedented number of stations; now more than seventy. This is an increase of twenty over last year and is due in large part to the fact that Clarence Tinsman, M.D., of Harrisburg, now does many of the actual recordings. The seventy-plus stations provide 100 percent coverage of the State plus sizeable areas in adjacent states.

In television, the Council has produced the first of a series of thirty-minute productions on health education topics. Additional funds are being sought to complete the series. When completed, the productions will be made available first to a statewide educational television network, and later to commercial stations and to public groups in kinescope form. The Council also is increasing the number of "spot" announcements available to the state's television stations.

The cost of producing the State Society Newsletter has been reduced to less than half with the changes in format and production methods effected the first of this year. It is planned to have the Newsletter evolve into an *as-needed* publication rather than one with a regular publication date. This will increase the speed of communications to State Society members and will effect additional savings.

The Council is producing a pilot course on the socio-economics of medicine for presentation to medical students and interns; additional communications have been effected with students, interns and residents; members of the State Society Speakers' Bureau have undergone an intensive training session; the use of **The Monitor** for county societies has been increased; the medical student recruitment activities have expanded; additional regional conferences on disaster medical care have been held and efforts are continuing to improve the level and quality of disaster medicine preparedness; the Commission on Rural Health has completed guidelines for a family practice preceptorship program; additional activities have been or will be held before the end of the year to acquaint medical students with the elements involved in family practice, and the third annual state Rural Health Conference is scheduled for October 26 at the Bedford Springs Hotel.

COUNCIL ON SCIENTIFIC ADVANCEMENT

The Council on Scientific Advancement is made up of eleven members and five consultants. The six commissions and two advisory committees have thirty-seven members and fourteen consultants. A total of sixty-eight physicians are involved.

The Council held meetings in December, 1965 and in April and June, 1966. The commissions and advisory committees have held twenty-three meetings. The Council consists of the Commissions on Maternal and Child Health, Occupational Health, Chronic Illness and Geriatrics, Medical Education, Mental Health and Environmental Health. There are Advisory Committees on Sports Injuries and Traffic Safety. Consultants have been appointed in the areas of traffic safety, sports injuries, chronic illness, maternal and child health, cancer, heart, mental health, and occupational health.

During the current year the Council has been involved in at least eighty projects, programs and cooperative activities varied in complexity and importance.

The activities of the Council fall into three major categories: (1) Community Health and Disease Control; (2) Medical Care Patterns; (3) Education and Communication. Each of these areas has been explored and specific Council activities noted.

Council plans for 1967 will not show a radical change from the current programs. Focus will be sharpened in several areas and the appropriate organizational structure and financial backing will be requested. Special effort next year will be required in the areas of traffic safety, drug addiction and alcoholism, school health programs, comprehensive mental health, health personnel training, and heart disease, cancer and stroke. Continuing efforts will be necessary as usual in the other areas of Council interest.

REPORT

DELEGATES TO AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

This has been an extremely busy year for the Pennsylvania Delegation to the American Medical Association. The AMA House of Delegates held three meetings since the last meeting of the House of Delegates of the Pennsylvania Medical Society. Shortly after the 1965 Annual Session of our Society, the AMA delegates were summoned to Chicago on October 2 and 3, for a special session called to consider certain matters with regard to the implementation of P.L. 89-97. We do not think it necessary to reiterate in this report those actions which were taken at that meeting since subsequent information and activities have received wide publicity.

The Pennsylvania Medical Society was extremely pleased to host the Clinical Convention of the American Medical Association in Philadelphia on November 28-December 1, 1965.

Pursuant to the instructions of the 1965 House of Delegates of the Pennsylvania Medical Society, your delegation introduced a resolution with regard to compulsory hospital assessments. This resolution was referred to the Judicial Council for consideration and subsequently the Judicial Council reported to the June, 1966 Session of the AMA House of Delegates and suggested that no action be taken on the Pennsylvania resolution since the various opinions and rulings of the Judicial Council had, on numerous occasions, discussed the unethical aspects of compulsory hospital assessments.

Federal health legislation, physician's billing procedures, medical ethics, racial discrimination, health manpower, and an increase in AMA annual dues were among the major subjects acted upon by the House of Delegates at the American Medical Association's 115th Annual Convention held June 26-30 in Chicago. Again, the various actions of the AMA House have been widely publicized and we do not feel the necessity of calling these items to your attention. It is significant to note that in connection with the medicare part of P.L. 89-97, the House adopted three resolutions which recommended that physicians use the direct billing method rather than the assignment procedure. At the same time, the House pointed out that the adoption of these resolutions should not be interpreted as contravening the statement approved at the Special Session in October, 1965 which said: "The American Medical Association opposes any program of dictation, interference, or coercion, whether direct or indirect, affecting the freedom of choice of physician to determine for himself the extent and manner of participation or financial arrangement under which he shall provide medicare care under P.L. 89-97."

All Pennsylvania physicians can be justly proud of James Z. Appel, M.D., of Lancaster, Pennsylvania, whose term as President of the American Medical Association expired at the June, 1966 meeting in Chicago. An editorial in the August, 1966 Issue of PENNSYLVANIA MEDICINE regarding Jim Appel's term as President of the AMA stated: "We chose the right man for this job when, in the fall of 1964, we named Jim Appel of Lancaster, President-elect. We had no doubts when he took office in June, 1965 and now that his term has ended, we feel nothing but pride and gratitude." We believe these words express the sentiments of the entire AMA delegation and we commend them to the 1966 House of Delegates of the Pennsylvania Medical Society.

We are also pleased to report that two leaders of Pennsylvania medicine have assumed important capacities in the American Medical Association. At the June, 1966 meeting, Russell B. Roth, M.D., of Erie, was elected to the important post of Vice Speaker of the House of Delegates of the AMA. Dr. Roth's colleague of the Erie County Medical Society, Elmer G. Shelley, M.D., was elected Chairman of the AMA's Judicial Council.

Pennsylvania was represented with a full complement of delegates at all meetings of the American Medical Association. In addition, many alternate delegates attended these meeting.

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There is a growing senescent body of people who —either from lack of motivation, or as a result of surgery, trauma, or extended illness—are on their way to malignant inactivity…

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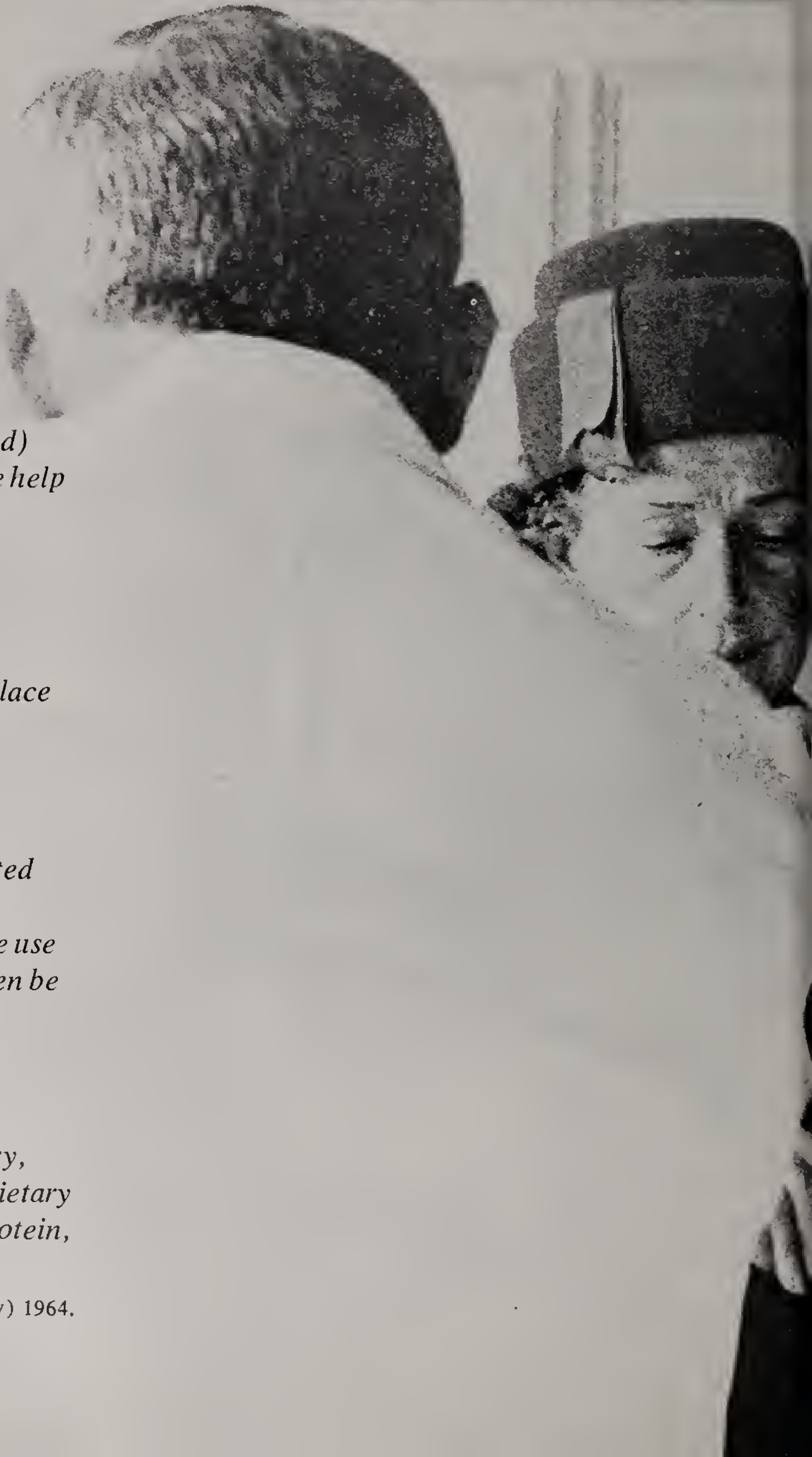

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McNeill, A. J.: Clin. Med. *8*:518 (Mar.) 1961.

"Mediatric (steroid-nutritional compound) capsules, one a day, seem to give definite help to debilitated patients."

Arnold, E. T., Jr.: Geriatrics *12*:612 (Oct.) 1957.

"Nutritional and hormone bolstering of function in the aged may have a useful place in geriatrics."

Morgan, A. F.: Gerontologist 2:77 (June) 1962.

"In diets which for any reason are restricted in calories, enough of these substances (B vitamins) may not be supplied . . . The use of B and C vitamin supplements may then be justified and indeed may be necessary."

Morgan, A. F.: Gerontologist 2:77 (June) 1962.

"Intensive nutritional therapy is necessary, especially in elderly people, to correct dietary deficiencies created by large losses of protein, vitamins and other nutrients."

Riccitelli, M. L.: J. Am. Geriatrics Soc. *12*:489 (May) 1964.

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Each 15 cc. (3 teaspoonfuls) contains:

*Conjugated estrogens—equine (Premarin®)	0.25 mg.
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Cyanocobalamin	1.5 mcg.
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Methyltestosterone	2.5 mg.
Ascorbic acid	100.0 mg.
Cyanocobalamin	2.5 mcg.
Intrinsic factor concentrate	8.0 mg.
Thiamine mononitrate	10.0 mg.
Riboflavin	5.0 mg.
Niacinamide	50.0 mg.
Pyridoxine HCl	3.0 mg.
Calc. pantothenate	20.0 mg.
Ferrous sulfate exsic.	30.0 mg.
Methamphetamine HCl	1.0 mg.

*Orally active, water-soluble conjugated estrogens derived from pregnant mares' urine and standardized in terms of the weight of active, water-soluble estrogen content.

MEDIATRIC helps keep the older patient alert and active; helps relieve general malaise, easy fatigability, vague pains in the bones and joints, loss of appetite, and lack of interest usually associated with declining gonadal hormone secretion.

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In the male: A careful check should be made on the status of the prostate gland when therapy is given for protracted intervals.

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Deaths

○ Indicates current membership in County Medical Society, The Pennsylvania Medical Society, and The American Medical Association.

○ **Lawrence G. Arnese,** Jessup; University of Nebraska College of Medicine, 1932; age, 62; died June 22, 1966. Dr. Arnese is survived by four sisters and three brothers.

Michele A. Barbouhr, Shillington; Temple University School of Medicine, 1917; age, 79; died June 16, 1966. Dr. Barbouhr, who retired in 1953, had engaged in private practice and had been a medical examiner for the Pennsylvania Railroad. He belonged to Masonic orders, and prior to retirement had belonged to the Berks County Medical Society, the PMS, and the AMA. His wife survives.

○ **John D. Donovan,** Pittsburgh; University of Pennsylvania School of Medicine, 1917; age, 75; died June 27, 1966. Dr. Donovan was active in the Allegheny County Medical Society, and for several years had attended the PMS Annual Session. His survivors include his wife, two daughters, and two sons.

○ **Harry Goodfriend,** Scranton; Columbia University College of Physicians and Surgeons, 1910; age, 77; died June 27, 1966. Dr. Goodfriend was chief of opthalmological service at Scranton General Hospital for many years prior to his retirement in 1951; he was also on the staffs of several other Scranton area hospitals. His wife, a daughter, and two sisters survive.

John C. Leonard, Hartford, Connecticut (a native of New Castle and a graduate of Westminster College); Yale University School of Medicine, 1932; age, 63; died April 26, 1966. He is survived by his wife.

○ **Edward A. Mallon,** Villanova; University of Pennsylvania School of Medicine, 1902; age, 84; died July 2, 1966. Dr. Mallon, who earned a Ph.D. degree at Villanova University, was a professor of biology there for several years. He was on the staffs of several hospitals. Among his survivors are two daughters, four sons, two sisters, and two brothers.

○ **Cornelius T. McCarthy,** Philadelphia; University of Pennsylvania School of Medicine, 1913; age, 77; died July 8, 1966. Dr. McCarthy, who had been instrumental in the founding of Fitzgerald-Mercy Hospital, Darby, was a former president and medical director there, and in recent years was a consultant and an honorary member of the staff. He also served on the medical staffs of several other hospitals. A member of the American College of Surgeons and the Otolaryngological Society, Dr. McCarthy was also active in the American Legion and in a number of Roman Catholic organizations. Six daughters survive.

○ **Edward H. McClister,** Kittanning; Medico-Chirurgical College, 1916; age, 72; died June 12, 1966. Dr. McClister was a recent recipient of the PMS Fifty-Year Award. He belonged to the International College of Proctologists and to the Elks, and was a former director and vice-president of the Merchants National Bank, Kittanning. He is survived by his wife, a daughter, and two sons.

James W. McMonagle, Philadelphia; Medico-Chirurgical College, 1913; age, 77; died March 6, 1966. We have received no information regarding survivors.

○ **Russell Richardson,** Downingtown; Harvard Medical School, 1911; age, 74; died July 8, 1966. Dr. Richardson formerly was director of the clinic laboratory at Methodist Hospital, Philadelphia, and director of the metabolic clinic (as well as assistant professor of medicine), at the University of Pennsylvania School of Medicine. His survivors include his wife, three sons, and a sister.

George J. Rilling, Philadelphia; Hahnemann Medical College, 1926; age, 64; died July 9, 1966. Dr. Rilling was a member of the International College of Surgeons. His wife survives.

○ **Philip Q. Roche,** Conshohocken; University of Michigan School of Medicine, 1930; age, 64; died July 30, 1966. Dr. Roche was an associate professor of psychiatry in the University of Pennsylvania School of Medicine. He was associated with the Institute of the Pennsylvania Hospital and with the Philadelphia Psychiatric Hospital, and was chief of neuropsychiatric service at Chestnut Hill Hospital. He belonged to the Philadelphia and the Pennsylvania psychiatric societies, and to the Philadelphia Psychoanalytic Society, and had served each one as president. In 1957, he received the Isaac Ray Award of the American Psychiatric Association, of which he was a member; he also belonged to the American Psychoanalytic Association and the Academy of Psychoanalysis. He had held several chairmanships in the Philadelphia County Medical Society. He is survived by his wife.

○ **Isaac S. Tassman,** Philadelphia; Medico-Chirurgical College, 1913; age, 74; died June 10, 1966. Dr. Tassman was chief of service at Wills Eye Hospital for many years, and was emeritus professor of medical ophthalmology in the Graduate School of Medicine of the University of Pennsylvania. He was the author of many scientific articles and of a standard text, *Eye Manifestations of Internal Diseases.* He belonged to many ophthalmologic specialty organizations. His survivors include his wife, a son (William S. Tassman, M.D.), and two brothers.

○ **Robert L. Weaver,** Rosemont; Tufts Medical College, 1927; age, 62; died May 15, 1966. Dr. Weaver had served the medical department of the New York Life Insurance Company, and from 1945 until his retirement in 1958 he was associate medical director of the Penn Mutual Life Insurance Company. He belonged to the American Heart Association, the College of Physicians and Surgeons, and the Association of Life Insurance Medical Directors. Among his survivors are his wife and a daughter.

○ **Gilbert I. Winston,** Reading; Jefferson Medical College, 1914; age, 74; died July 21, 1966. Dr. Winston was a Fellow of the International College of Surgeons. From 1916 to 1931 he was an assistant and an associate in surgery at St. Joseph's Hospital, and head of the proctology department. Active in the Berks County Medical Society, he was several times a delegate to the PMS Annual Session. His survivors include his wife, two sons, Norman J. and Joseph M. Winston, both M.D.'s, two sisters, and a brother, Julius Winston, M.D.

○ **Anna G. Young,** Langhorne; Woman's Medical College, 1909; age, 78; died July 7, 1966. Dr. Young's professional career had included institutional work in such establishments as the Farnhurst Mental Hospital in Delaware. Her only survivor is a cousin.

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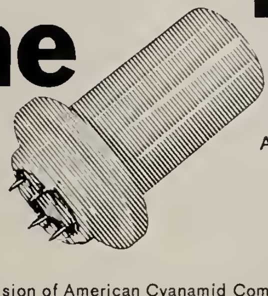

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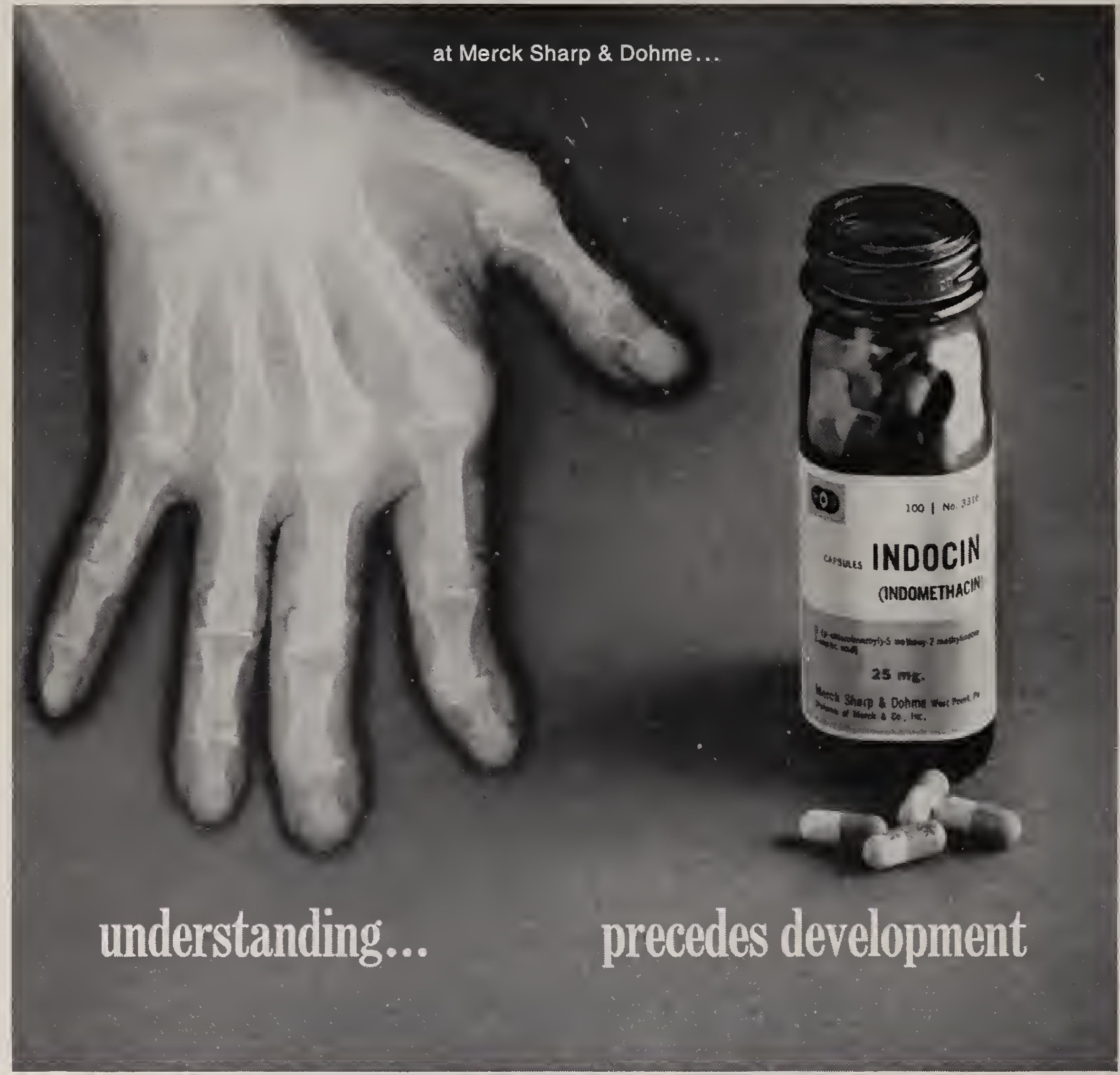
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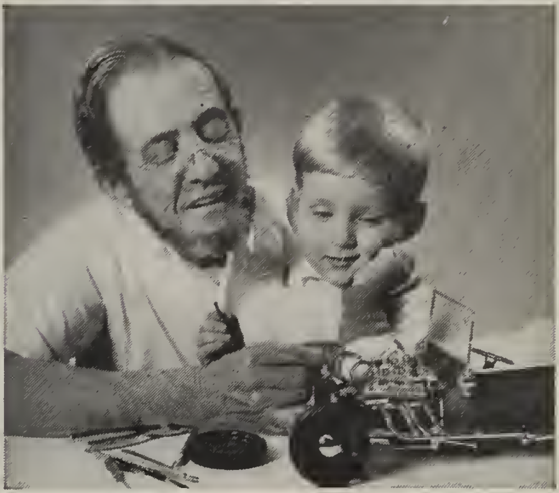

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Meetings

STATE SOCIETY

SEPTEMBER

Council on Public Service—September 10.

OCTOBER

One Hundred Seventeenth Annual Session—Penn Sheraton Hotel, Pittsburgh, October 9–13.

REGIONAL

SEPTEMBER

Seminar on Diabetes, Florida Diabetes Association—Deauville Hotel, Miami Beach, September 29–30. Contact R. T. Rengarts, M.D., secretary, P.O. Box 268, Sebring, Florida 33870.

Cancer Scientific Symposium for Physicians and Dentists—Holiday Inn, Route 22, Bethlehem, September 21, 9:30 A.M.–4 P.M. speakers: Drs. George Crile, Jr., Robert Ravdin, Sigmund Nadler, Peter Randall, Milton Miller (D.D.S.), and Lt. Col. S. N. Bhaskar.

Personnel Seminar (hospitals)—Benjamin Franklin Hotel, Philadelphia, September 29.

OCTOBER

Annual Meeting, Pennsylvania Chapter, American Academy of Pediatrics—Pocono Manor Inn, October 1–2.

NATIONAL

SEPTEMBER

American Association of Obstetricians and Gynecologists—The Homestead, Hot Springs, Virginia, September 8–10.

Decennial Conference on Cell, Tissue, and Organ Culture—Bedford, September 11–15.

American Society of Clinical Pathologists—Washington (D.C.) Hilton Hotel, September 16–24 (members only).

College of American Pathologists—Hilton Hotel, Washington, D.C., September 17–23.

International Congress of Nephrology, cosponsored by American Heart Association Council on Circulation—Washington, D.C., September 26–30.

Animal Care Panel—Chicago, September 26–30.

OCTOBER

American Society of Anesthesiologists—Sheraton Hotel, Philadelphia, October 1–5.

Thirty-first Annual Meeting, Industrial Hygiene Foundation — Chatham Center, Pittsburgh, October 18, 19. Write Robert T. P. deTreville, M.D., 4400 Fifth Avenue, Pittsburgh 15213.

American College of Gastroenterology—Bellevue Stratford Hotel, Philadelphia, October 23–26.

Thirty-fifth Annual Meeting, American Academy of Pediatrics—Chicago, October 22–27. Contact the academy at 1801 Hinman Avenue, Evanston, Illinois 60204.

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Sponsored by Lakeside Laboratories is the 16 mm. color film, *The Measurement of Depression,* a medical education aid for use at meetings of county societies, specialty groups, or hospital staffs.

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NOVEMBER

National Society for Crippled Children and Adults—Pittsburgh, November 10-13.

Course in Obstetrics and Gynecology—Bloomfield, New Jersey, Academy of Medicine of New Jersey, November 16-19; $12 per day, $35 entire period, including lunches, parking. Write the Academy, 307-17 Belleville Avenue, Bloomfield 07003.

National Conference on Dyslexia—Philadelphia, November 18, 19. Write Virginia T. Keeney, M.D., 1601 Spring Garden Street, Philadelphia 19130.

American Medical Association Clinical Convention—Las Vegas, November 27–30. Conference on Medical Aspects of Sports—Las Vegas, November 27.

- Virtually all of a group of 52 children in a Scranton institution who received a live combined measles-smallpox virus vaccine, developed immunizing antibodies against both diseases. The study was conducted by physicians from the University of Pennsylvania's department of pediatrics, in collaborations with scientists from Merck Sharp & Dohme, West Point, Pennsylvania.

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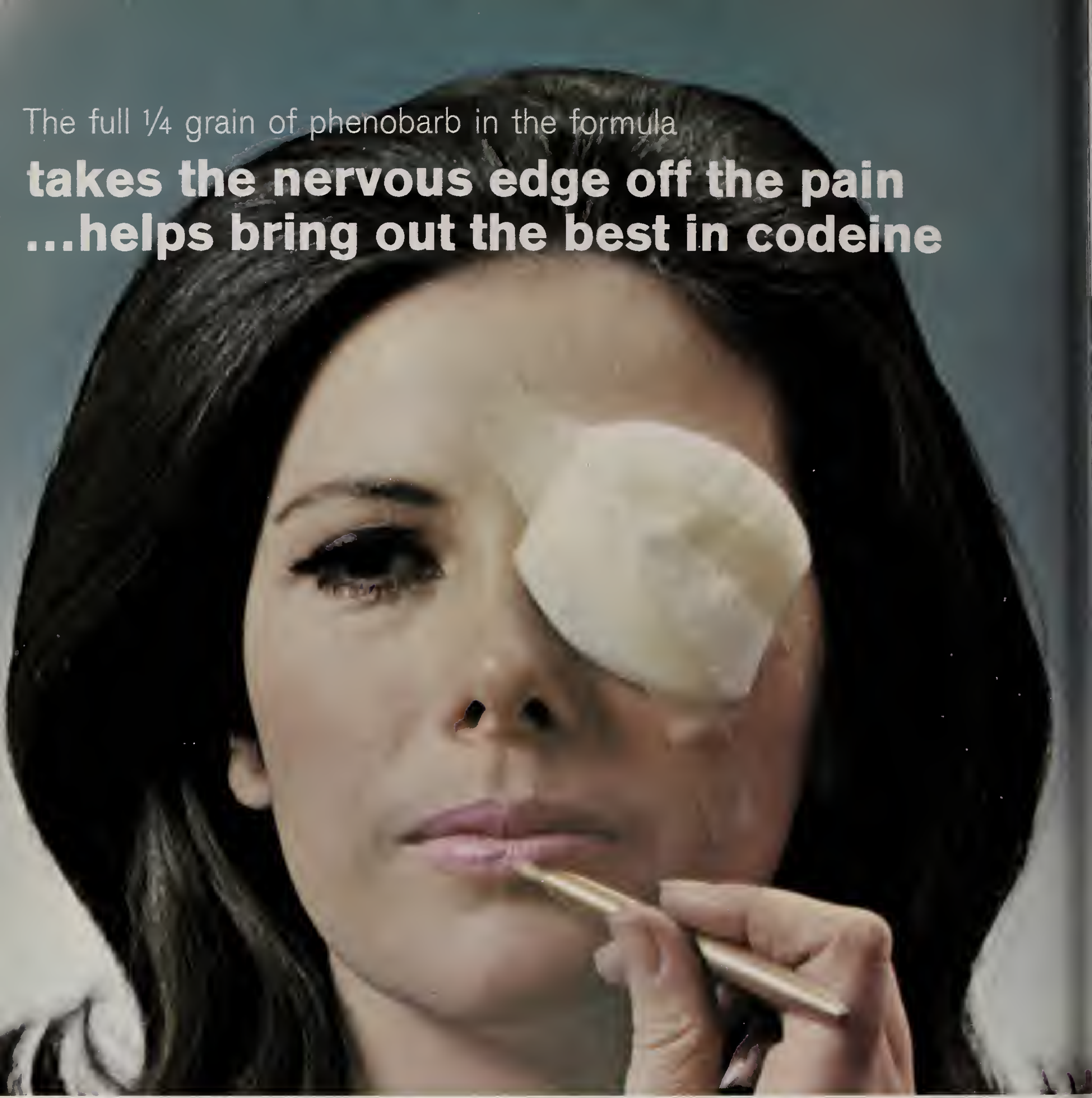

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New Prosthesis Under Study

Focusing on control problems in the use of finely-engineered prosthetic devices, personnel at the Philco Corporation headed by Dr. F. Ray Finley, are cooperating with rehabilitation specialists at the Temple University Health Sciences Center under the leadership of Bernard Sandler, M.D.

Power-assisted limbs have been the subject of research by the two organizations since 1962. Solution of remaining control problems could, in about two years, bring clinical evaluation of the prosthetic arm now under study.

The artificial arm turns at the wrist and bends at the elbow. The new study aims to add two more degrees of activity—prehensile grasp and humeral rotation. Movement is prompted by electronic pattern recognition of the biological electric signals generated for muscle action. Silver electrodes pick up these myopotentials at the skin surface above the motor points or the muscle.

Sensors are connected to a control circuit package about 3⅜ x 2 x ¾ inches in size which amplifies the biosignal electronically by means of a series of processing techniques. The control box can discriminate between desired and undesired muscle activity, moving the arm (and eventually the fingers) according to the wearer's needs.

Above-the-elbow amputees taking part in the study will be the source of basic engineering data to be used in devising the four-axis arm. The working model will yield information for refining and optimizing design.

The project, financed by grants to Temple University Health Sciences Center from the Vocational Rehabilitation Administration of the federal HEW department, aims to increase, manifold, the amputee's manual proficiency. Likely byproducts are new insights into amputation surgery, and improved techniques for fitting and training amputees.

PROSTHESIS PROJECT—Philco biomedical engineers shown with experimental arm and electronic control box are, left to right, Dr. F. Ray Finley, project manager, Donald R. Taylor, Jr., control-package designer, and Roy W. Wirta, manager of the bioengineering group.

- The Children's Hospital of Philadelphia has received a grant from the John A. Hartford Foundation of New York City, for research into the biochemical development of human infants—with emphasis on certain hereditary diseases. Stanton Segal, M.D., will direct the program.

Foreign Study Aid to Two

A medical student at Temple University School of Medicine and one at the University of Pennsylvania School of Medicine were two of three grantees chosen to participate abroad in eight-to-twelve-week pediatrics projects.

John Toton of Temple will go to Belgrade, Yugoslavia, to study the incidence of phenylketonuria (PKU) in that country.

Michael L. Swerdlow will work at the Tel Hasomer Hospital, Tel Levinski, Israel, on a project of national screening of neonates by assay test, to detect PKU and of followup care and treatment for all cases found.

The awards are part of a new Research Fellowship Program of the Children's Bureau, HEW.

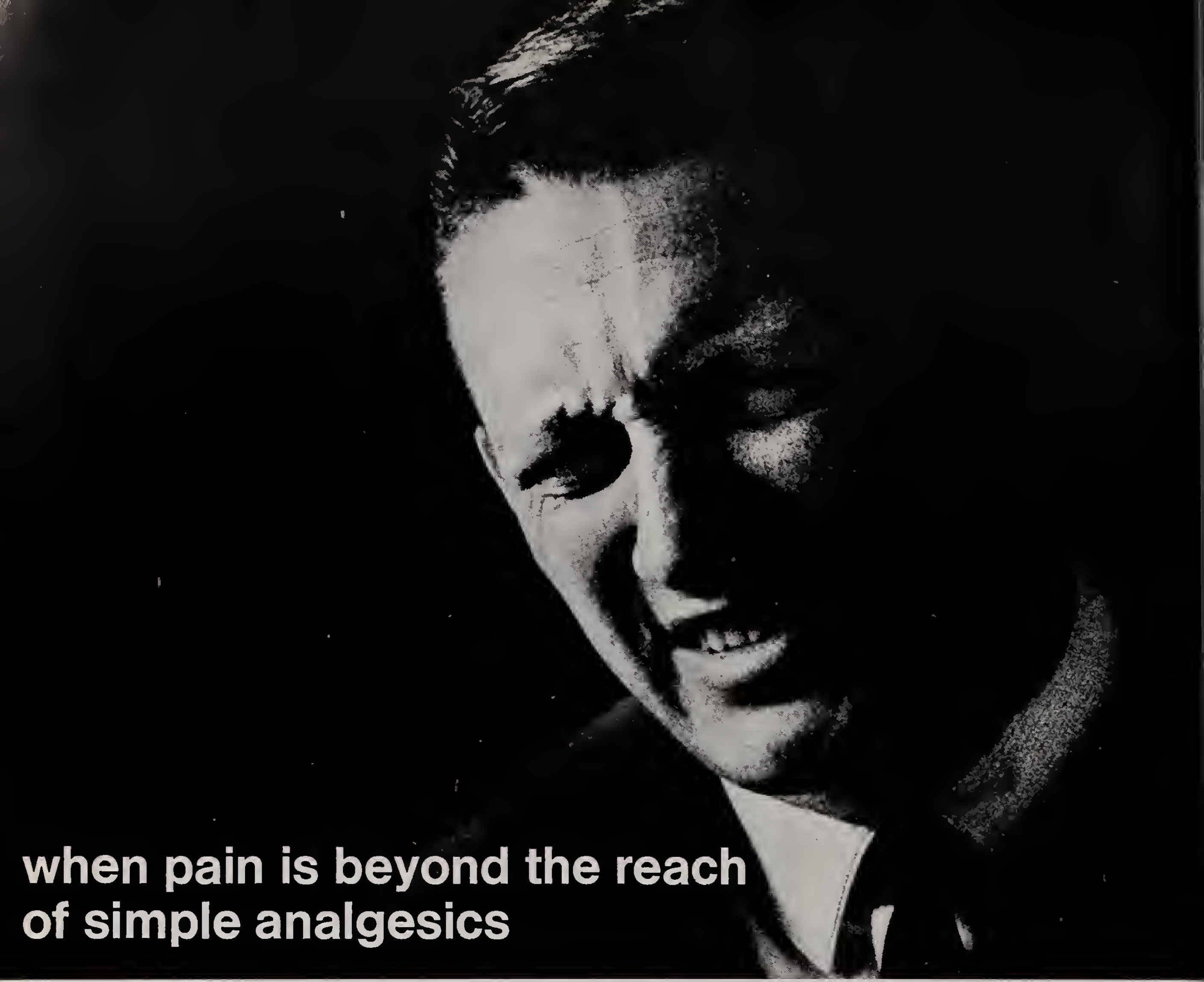
New Dermal Antibiotic

Schering Corporation has introduced the first new antibiotic for topical use to be marketed in 14 years.

Garamycin (gentamicin sulfate), said to be highly effective in the treatment of primary and secondary infections of the skin, will be marketed initially in cream and ointment form, by prescription.

Garamycin, an antibiotic mixture produced when micromonospora purpurea is grown in submerged cultures, is the first antibiotic to be made commercially available from this organism.

- The Pennsylvania State University has introduced a program for a major in nursing, leading to the Bachelor of Science degree.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Side effects have been minor. Occasionally gastric distress, weakness, sedation or dizziness occur. Reversible cholestatic jaundice has been reported on rare occasions. However, in 4,653 patients treated with chlormezanone, 97.7% had *no* side effects.[1] *Contraindication:* just one: sensitivity to aspirin. *Dosage:* Adults, usually 2 tablets three or four times daily. Children (from 5 to 12 years), 1 tablet three or four times daily.

1. Collective studies, Department of Medical Research, Winthrop Laboratories.

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EDITORIALS

M.D.'s and Hospitals

Relationships between physicians and hospitals have in recent years become increasingly important. Pronouncements stress the fact that every physician should participate in the medical staff activities of the hospital serving his patients. Since the doctor's welfare and success are tied to the calibre of the hospital, we contend that he should be concerned with *all* hospital activities and problems.

But a visit to a representative group of hospitals would show that only a small fraction of the medical profession is serving fully. Discussions with hospital medical staff officers and committee chairmen indicate that participation in medical staff affairs is limited to a few physicians. The "active medical staff" can be divided into two categories—members who are truly *active,* and those who are actually *inactive,* the latter often excusing their defection by referring to the former as "that clique" who have "seized control of the staff."

Whatever the cause, the same names do recur in the roster of officers, committee members, and participants in work such as the educational effort. Often, when a member of the dormant majority does attend a meeting, he is cynical, disparaging, unconstructive, or utterly silent. (Of course we all know the doctor whose wife almost invariably telephones him during the first third of the meeting, to send him forth on some great errand of mercy.)

With the advent of P.L. 89-97, the need for an effective medical staff has become more pressing than ever. Because physicians know they must live with medicare, the likelihood of convincing recalcitrant ones to join in hospital activities is rapidly growing.

During the hectic days of learning to decipher medicare directives in order to avoid floundering when the new law took effect, we discovered that the social planners do not think of physicians as a unified group. For example, the Social Security Administration identified at least two classes of physicians who care for hospitalized patients—those who are hospital-based, and those who are not, the former defined as those who have "a financial relationship with a hospital . . . are salaried, or . . . receive compensation from or through the hospital under billing arrangements . . ." (*Federal Register,* **31:** 8940, June 28, 1966).

Physicians might well view such differentiation as artificial and harmful, since practically all M.D.'s are "hospital-based," if one regards that term literally. The complexity of modern diagnosis and treatment makes it necessary to admit almost every patient to the hospital at some time during the course of every well-defined illness. Thus some physicians whom the *Federal Register* would not term "hospital-based" actually *are* based in the hospital.

Moreover, a growing class of physicians whose fees do not pass through the hospital office are fully engaged in practice in voluntary community hospitals—for example, the doctor who limits his practice to manning the hospital's emergency service, and who bills his patients separately as he did before.

Stressing this point of semantics might seem far-fetched to anyone who is not a pathologist, a radiologist, or an anesthesiologist. We are not discussing the plight of these physicians; rather, we are emphasizing that their relations with hospitals have become unsatisfactory, a fact that demands *every* physician's attention, so that all of us may have first-class consultants for our patients.

We are committed to providing the best possible hospital care, and we must build a team of strong individuals. And the physician should be interested in all members of this team, including paramedical personnel.

Hospital administrators and consultants, insurance executives, voluntary health agency officials and industrial leaders, see the need for the physician's voice in operating the hospital. With the Joint Commission on Accreditation, the AMA, and specialty groups adding their urging, there is a solid front of demand for every physician's counsel and guidance in hospital activities.

Why, then, when the advantage of "pitching in" is so great, is the proportion of interested physicians so small? One reason, alluded to above, is "the dominant clique syndrome," which pushes some physicians into positions of responsibility and service, but creates in others a spirit so modest that they relinquish all satisfying areas of accomplishment to other staff physicians.

The remedy for this syndrome is to persuade these physicians that there is ample employment for all; as an example, how can we have too large a roster of doctors who will serve on utilization committees for hospitals or extended care facilities, or will devote time and effort to claims review committees?

Organized medicine must show every doctor that he is urgently needed —not only in the interests of the profession, but just as much (or more), in the interests of his patients.

A few cannot do it all, and the tasks are so diverse that they call for the capabilities of men and women in many medical fields. By learning the scope of the hospital administrator's problems, each physician can contribute something that will help weld the components into an efficient whole. Administrative problems, personnel matters, finance, purchasing—every doctor can be helpfully knowledgeable in these and other aspects. And he should be concerned that the hospital board is manned by the finest and most self-sacrificing laymen.

When every doctor has become involved in the concerns of his particular hospital or hospitals, and understands medicoeconomics, political ramifications of building and maintaining hospitals, the mechanics and art of fund raising, the hospital's relationships with welfare agencies and voluntary health organizations, and many other vital matters, we will be near the "millenium." We will have reached a point where the hospital's functioning will be efficient, economical, and effective, even while we continue to realize that it is still complex and expensive.

Those who now participate have a clear responsibility: to "sell" inactive physicians on the idea of joining forces with active ones. The selling point is simple and should have universal appeal: participation is in each physician's own best interest.

Mail Call

Paper Process

Please explain the *modus operandi* when a manuscript is sent for publication.

What is done prior to its publication, when approved? Thank you.

Albert P. Seltzer, M.D.,
Philadelphia.

All manuscripts submitted for possible publication in Pennsylvania Medicine are forwarded to the medical editor for review with his editorial conferees, after which authors are notified of their articles' acceptance or rejection.

A rejected manuscript is returned to the author with an accompanying letter. When an article is accepted, the author is notified, the manuscript is edited by the medical editor, and the Pennsylvania Medicine staff adapts it to journal style.

Suggested minor changes are noted on galley proofs for the author's approval. When major revision is called for, suggested changes are noted on a copy of the original manuscript, and this marked copy is returned to the author for approval or additional rewriting or comment.

The author returns the article to Pennsylvania Medicine, and it is scheduled for publication in the earliest issue in which space becomes available.

Philosophy of Doctor

The July issue of Pennsylvania Medicine presents, in addition to several excellent professional papers, two articles and several editorials expressing concern over the absence of participation by physicians in the community life of the newly emerging America.

The goals defined are desirable if one overlooks the fact that all tax money comes from profit or wages which in turn must come from the consumer, who is also a producer.

If we concern ourselves merely with man's material welfare, we can formulate an equation: R (raw materials), plus H (human mental and physical energy), equals MMW (man's material welfare). R plus H equalled very little in the early life of man. The advent of tools multiplied production; more and better tools, developed from savings, gave more production in less time, with marked improvement in man's material welfare.

The wealth of a nation requires some balance among these three factors: (1) the ability to produce; (2) the ability to consume; and (3) the ability to distribute.

General Sarnoff, in an interview several months ago, foresaw no limit to man's ability constantly to improve the status of his material welfare. He decried the fact that man's wisdom had not improved much. The socialists in our midst look into the magic mirror and see their features reflected —truly a lack of humility in view of the fact that nowhere on earth, past or present, have their noble experiments been nearly so successful as has the American capitalistic system, which has had the wisdom to accept the fact that all things are created by God.

Only time will tell whether or not we are living in an affluent or an effervescent society. We as physicians and citizens must realize that all bubbles eventually burst. We should be prepared energetically to support the free American capitalistic system which has had and always will have the wisdom to succeed.

Let us examine and reexamine the choice confronting us: a godless socialistic society, sharing a life of spiritual and economic poverty, or the sharing of a life richer both spiritually and economically through constantly improving the American capitalistic system, by means of its wisdom.

R. Elmer Schachterle, M.D.,
Ephrata.

At Least – In the Interests of Safety

In the eighteenth edition of the "Building Exits Code," as adopted in 1961 by the National Fire Protection Association, are the following statements on the subject of smoking in hospitals:

"Smoking regulations shall be adopted and shall include the following minimal provisions:

"(a) Smoking shall be prohibited in any room, ward, or compartment where flammable liquids, combustible gases, or oxygen are used or stored and in any other hazardous location. Such areas shall be posted with 'NO SMOKING' signs.

"(b) Smoking by patients classified as not being responsible for the safety of themselves or others shall be prohibited except when specifically allowed by their physicians' written orders and when, in addition, a responsible nonpatient adult is present in the room.

"(c) Ash trays of noncombustible material and safe design shall be provided in all areas where smoking is permitted. The emptying of ash trays into open wastepaper containers is prohibited.

"(d) Metal containers with self-closing cover devices shall be provided for the disposal of the contents of ash trays."

All of which makes sense.

following infection

B and C vitamins are therapy: STRESSCAPS B and C vitamins in therapeutic amounts...help the body mobilize defenses during convalescence...aid response to primary therapy. The patient with a severe infection, and many others undergoing physiologic stress, may benefit from STRESSCAPS capsules.

Stresscaps®

Stress Formula Vitamins Lederle

FOR PROFESSIONAL RECOMMENDATION ONLY

Each capsule contains:

Vitamin B_1 (as Thiamine Mononitrate)	10 mg
Vitamin B_2 (Riboflavin)	10 mg
Vitamin B_6 (Pyridoxine HCl)	2 mg
Vitamin B_{12} Crystalline	4 mcgm
Vitamin C (Ascorbic Acid)	300 mg
Niacinamide	100 mg
Calcium Pantothenate	20 mg

Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

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new

“Doctor, when the kids
act up and nothing goes right,
I get these throbbing
pains in the back of my head.”

a new formulation that relieves pain in tension headache and neuralgia

Dialog is a combination of 15 mg allobarbital and 300 mg acetaminophen. Allobarbital, a proven barbiturate, provides desirable sedation in patients experiencing pain and discomfort. Acetaminophen is a nonsalicylate analgesic-antipyretic, well tolerated and useful in a wide range of mildly painful and febrile conditions.

Dialog is well tolerated, even by those sensitive to aspirin. It is nonirritating to the gastrointestinal tract and has no adverse effects on the kidneys.

- Raises the pain threshold
- Suppresses the pain-producing mechanism
- Reduces emotional tension

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Many overweight patients can benefit from the appetite control provided by the sustained anorexigenic-tranquilizing action of BAMADEX SEQUELS: anorexigenic action of amphetamine; tranquilizing action of meprobamate; prolonged action through sustained release of active ingredients.

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DEXTRO-AMPHETAMINE SULFATE (15 mg.) SUSTAINED RELEASE CAPSULES
WITH MEPROBAMATE (300 mg.)

to help establish a new dietary pattern

Contraindications: Dextro-amphetamine sulfate: in hyperexcitability and in agitated prepsychotic states. Previous allergic or idiosyncratic reactions to meprobamate.
Precautions: Use with caution in patients hypersensitive to sympathomimetic compounds, who have coronary or cardiovascular disease, or are severely hypertensive.
Dextro-amphetamine sulfate: Excessive use by unstable individuals may result in psychological dependence.
Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.
Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness.
Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.
Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobomate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

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Pearl River, New York

695-6

MEDICAL SOCIETY NEWS

PMS NOMINATIONS

Judicial Council

The Constitution provides that "At least thirty days prior to each Annual Session of the House of Delegates, the Board of Trustees and Councilors shall nominate at least three qualified persons for each vacancy on the Judicial Council, and shall promptly publish their names to the membership of this Society, in the Journal of the Society, if there be such, or by some other appropriate means . . ." Nominations may also be made from the floor of the House of Delegates.

The Board of Trustees submits the names of Drs. Lewis T. Buckman, William W. Cashman and E. Roger Samuel in nomination for the vacancy created by the expiration of Dr. Buckman's term. All three nominees are eligible for a full-term, five year appointment to the Council.

Lewis T. Buckman, M.D., was appointed by the Board to fill the vacancy created by the death of William B. Patterson, M.D. Dr. Buckman's interim appointment terminates at the 1966 Session of the House of Delegates. He is eligible for reelection for two more consecutive five-year terms as he has served only a partial term.

Committee on Convention Program

In accordance with the provisions of the Society's Constitution and By-laws, the Board of Trustees takes this opportunity to nominate qualified members for the existing vacancies on the Convention Program Committee.

The terms of three members of the Committee expire at the 1966 Annual Session; Dr. Jerome Chamovitz, Chairman, Dr. Edward G. Torrance, Vice Chairman and Dr. James A. Collins, Jr., appointed by the Board to fill the vacancy created by the resignation of Dr. C. Wilmer Wirts. The By-laws do not restrict the number of terms a member may serve on the Committee; consequently all three men are eligible for reelection. Dr. Torrance has declined renomination, and the Board has nominated John H. Killough, M.D., in his place. Dr. Collins has been nominated for a one-year interim term to complete the term of Dr. C. Wilmer Wirts, originally scheduled to end in 1967. Dr. Collins would be eligible for a full three-year term upon completion of this interim term.

For the consideration of the House, the Board nominates Drs. Jerome Chamovitz and John H. Killough for full terms, and Dr. James A. Collins, Jr., for a one-year interim term, as members of the Committee on Convention Program.

Councilors Set Pre-Session Meetings

From 1 to 2:30 P.M. on October 9 in Pittsburgh, prior to the opening of the PMS Annual Session, district councilors will hold meetings as follows:

District	Chairman	Location in Penn-Sheraton
2	William A. Limberger, M.D.	Aero Room, Club Floor
3	Joseph A. Walsh, M.D.	East Room, Club Floor
5	David S. Masland, M.D.	Grant Room, Club Floor
6	H. Thompson Dale, M.D.	Parlor D, Seventeenth Floor
7	Robert S. Sanford, M.D.	Room 766, Seventh Floor
8	James A. Biggins, M.D.	Room 690, Sixth Floor
9	Cyrus B. Slease, M.D.	Parlor F, Seventeenth Floor
11	Clarence J. McCullough, M.D.	West Room, Club Floor
12	Park M. Horton, M.D.	Parlor G, Seventeenth Floor

Each meeting is open to all PMS members within the particular councilor district.

The House of Delegates will convene at 3 P.M. on that day.

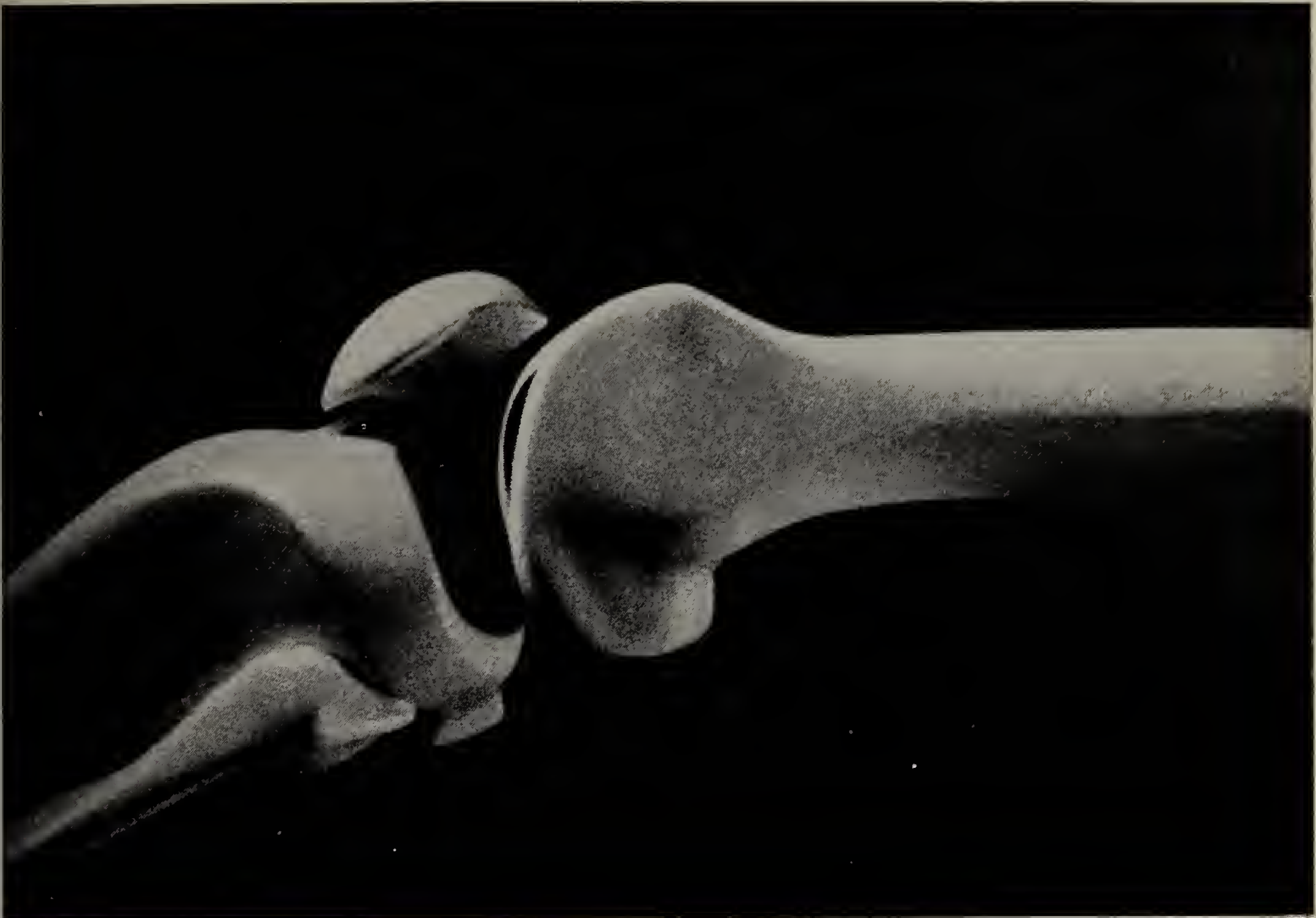
Health Groups Ready Philadelphia Fair

Some forty voluntary health groups and public health agencies of an eight-county area in and around Southeastern Pennsylvania are preparing exhibits, demonstrations, lectures, and chest x-ray units for the Greater Philadelphia Health Fair opening October 15.

Malcolm W. Miller, M.D., Philadelphia, chairman of the event, has called attention to the many areas of health concerns and accident prevention that are the Fair's reason for being. Obesity, cardiovascular diseases, tuberculosis, infant mortality, and suicide are among problems to be spotlighted at the exhibition.

Considerable emphasis will also be given to precautions aimed at accident prevention in the home and on the highway, Dr. Miller has announced.

There is no admission charge for the Fair. Sponsored by the Philadelphia County Medical Society, it is financed by contributions from individuals interested in furthering health education.



Butazolidin® alka

phenylbutazone, 100 mg.
dried aluminum hydroxide gel, 100 mg.
magnesium trisilicate, 150 mg.
homatropine methylbromide, 1.25 mg.

Usually works within 3 to 4 days in osteoarthritis

The trial period need not exceed 1 week. In contrast, the recommended trial period for indomethacin is *at least 1 month.*

That's why it's logical to start therapy with Butazolidin alka—you'll know quickly whether or not it works. And usually, it will.

A large number of investigators have reported major improvement in about 75% of cases. Some patients have gone into remission. Relief of stiffness and pain may be followed quickly by improved function and resolution of other signs of inflammation. And Butazolidin alka is well tolerated, especially since it contains antacids and an antispasmodic to minimize gastric upset.

Contraindications

Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. Because of the increased possibility of toxic reactions, the drug should be used with greater care in the elderly and should not be given when the patient is senile or when other potent chemotherapeutic agents are given concurrently. Large doses of Butazolidin alka are contraindicated in patients with glaucoma.

Warning

If coumarin-type anticoagulants are given simultaneously, the physician should watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Patients receiving such concomitant therapy should be carefully observed for this effect.

Use with caution in the first trimester of pregnancy.

Precautions

Before prescribing, the physician should obtain a detailed history and perform a complete physical and laboratory examination, including a blood count. The patient should be kept under close supervision and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools. Regular blood counts should be made to guard against blood dyscrasias.

Adverse Reactions

The most common adverse reactions are nausea, edema and drug rash. Moderately lowered red cell count may sometimes occur due to hemodilution. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, exfoliative dermatitis, Stevens-Johnson syndrome or a generalized allergic reaction may occur and require withdrawal of medication. Stomatitis, salivary gland enlargement, vertigo or languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia are also possible side effects.

Confusional states, hyperglycemia, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hepatitis, jaundice and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently.

Dosage

The initial daily dosage in adults is 300-600 mg. daily in divided doses. In most instances, 400 mg. daily is sufficient. When improvement occurs, dosage should be decreased to the minimum effective level: this should not exceed 400 mg. daily, and is often achieved with only 100-200 mg. daily.

For complete details, please refer to full prescribing information.
6509-V(B)

Also available: Butazolidin®, phenylbutazone Tablets of 100 mg.

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Division of Geigy Chemical Corporation
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Sustained circulatory, respirator
and cerebral stimulation for th

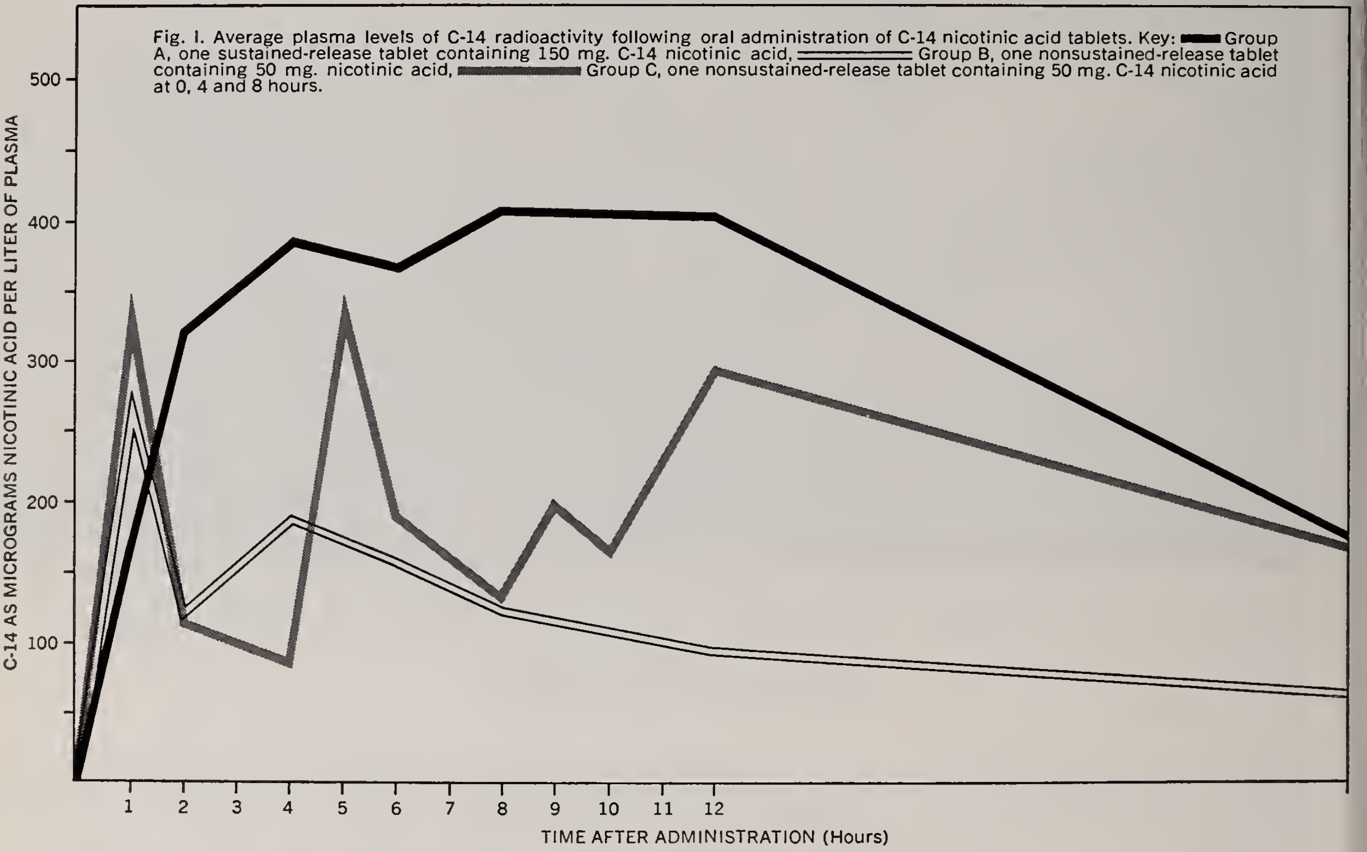
Fig. I. Average plasma levels of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ━ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═ Group B, one nonsustained-release tablet containing 50 mg. nicotinic acid, ▬ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

(fewer absent doses by absent-minded patients)

Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated

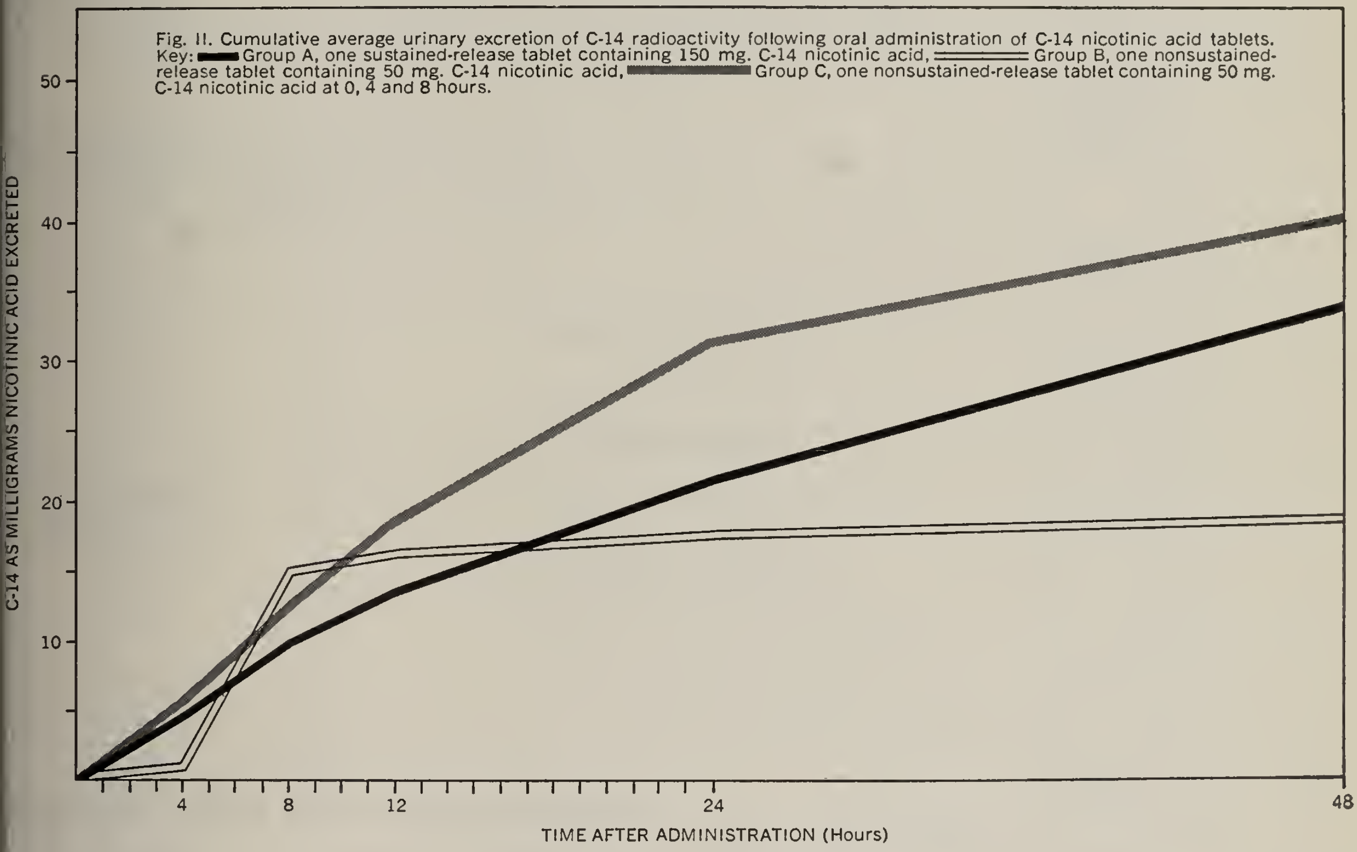

Fig. II. Cumulative average urinary excretion of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═ Group B, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid, ▬ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

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PHILIPS ROXANE LABORATORIES
Division of Philips Roxane, Inc., Columbus, Ohio
A Subsidiary of Philips Electronics and
Pharmaceutical Industries Corp.

Geroniazol® TT

nicotinic acid 150 mg., pentylenetetrazol 300 mg.
Tempotrol® Time Controlled Tablet

ANNUA
SCHEDULE FOR 196

October 9
SUNDAY

1:00 P.M.
Councilor District Meetings

3:00 P.M.
House of Delegates
(1st Session)

October 10
MONDAY

ALL DAY MONDAY

GOLF TOURNAMENT

All sessions 3 consecutive mornings

I. WORKSHOPS: (Attendance limited to 15 persons.)

8:30-11:15 A.M.
1. NEW TECHNIQUES IN OBSTETRICS AND GYNECOLOGY
2. INTENSIVE CARE TECHNIQUES
3. OBSTRUCTIVE PULMONARY DISEASE
4. NEW CONCEPTS IN PHYSICAL THERAPY AND REHABILITATION
5. NEW TECHNIQUES IN RENAL AND CARDIAC DISEASE
6. NEWER TECHNIQUES IN THE MANAGEMENT OF CANCER

MONDAY

11:45 A.M. to 1:15 P.M.

LUNCHEON WITH THE EXPERTS

CONTROVERSY IN TH

CORONARY HEART DISEASE

PANEL:

1. **1:30-2:30 P.M.**
Current Surgical Approach to Coronary Artery Disease—How Successful to Date?

2. **2:30-3:30 P.M.**
Coronary Care Units—Tiger by the Tail?

BREAK

3. **4:00-5:00 P.M.**
Vasoconstrictors & Vasodilators—Has Clinical Experience Justified Their Use In Acute And Chronic Coronary Heart Disease?

GENERAL MEDICAL PROBLEMS

PANEL:

4. **1:30-2:30 P.M.**
Routine Autopsy—Has it Outlived its Usefulness?

5. **2:30-3:30 P.M.**
Cancer Chemotherapy—What Does It Really Accomplish?

BREAK

6. **4:00-5:00 P.M.**
Tonsillectomy—Where Do We Draw the Line?

1:30 P.M. Reference Committees
3:00 P.M. Reference Committees

8:00 P.M. Medicare In Action—A 3-Month Appraisal

Octobe

TUESDAY

OBSTETRICS AND GYNECOLOGY

PANEL:

7. **1:30-2:30 P.M.**
Therapeutic Abortion—
Often or Not Enough?

8. **2:30-3:30 P.M.**
Therapy of the Postm
pause—Estrogens Forev

BREAK

9. **4:00-5:00 P.M.**
The Pill—Is It Safe?

6:00-8:00 P.M. Alumni Di
Jefferson, Temple, Wom
Hahnemann, U. of Pa.

ONVENTION
CIENTIFIC SESSIONS

SDAY

October 12
WEDNESDAY

October 13
THURSDAY

All sessions 3 consecutive mornings

I. REVIEW COURSES: (Attendance unlimited.)

8:30-11:30 A.M.
1. CARDIOLOGY (including CARDIAC AUSCULTATION) (in association with Pennsylvania Heart Association)
2. ARTHRITIS IN PRACTICE (in association with The Arthritis Foundation)

II. CLINICAL CONFERENCES: (Attendance unlimited.)

8:30-11:00 A.M.
1. MEDICINE—Dr. Jack Myers and Staff, Presbyterian—University Hospital
2. PEDIATRICS—Dr. Donald N. Medearis and Staff, Children's Hospital

1:45 A.M. to 1:15 P.M.

LUNCHEON WITH THE EXPERTS

WEDNESDAY

11:45 A.M. to 1:00 P.M.

LUNCHEON WITH THE EXPERTS

◆

1:00 P.M. to 1:45 P.M.

ANNUAL ORATION

Controversy in Today's Medical Education
George T. Harrell, Jr., M.D.

RACTICE OF MEDICINE

ENDOCRINOLOGY

EL:

1:30-2:30 P.M.
iabetes—Does Strict Ther-
py Prevent Complications?

2:30-3:30 P.M.
adioactive Iodine—Has it
ved Up To Its Original
romise in Diagnosis and
erapy?

BREAK

4:00-5:00 P.M.
besity—Do We Really Un-
erstand It?

THERAPEUTIC

PANEL:

13. 2:00-300 P.M.
Antibiotic Therapy—How Can We Create Order Out of Chaos?

14. 3:00-4:00 P.M.
Management of Arthritis—What does Long-Term Chemotherapy Really Accomplish?

BREAK

15. 4:15-5:15 P.M.
Have Tranquilizers & Energizers Lived Up To Expectation?

VASCULAR DISEASES

PANEL:

16. 2:00-3:00 P.M.
Arteriosclerosis—How Important Is Diet In Prophylaxis and Treatment?

17. 3:00-4:00 P.M.
Cerebrovascular Disease—Have Surgery, Anticoagulants, and Vasodilators Proved Their Worth?

BREAK

18. 4:15-5:15 P.M.
Hypertension—What Does Therapy Really Accomplish?

3:00 P.M.—House of Delegates (2nd Session)

P.M. Program for Public
Are We Becoming A Nation of Addicts?

7:00 P.M.—State Dinner

8:30 A.M.

House of Delegates (3rd Session)

Specialty Meetings:

Pennsylvania Allergy Association

Pennsylvania Chapter, American College of Chest Physicians

Pennsylvania Academy of Ophthalmology & Otolaryngology

Pennsylvania Orthopaedic Society

Pennsylvania Academy of Physical Medicine & Rehabilitation

Pennsylvania Psychiatric Society

Pennsylvania Chapter, International College of Surgeons

MORNING COURSES

All courses extend over a three-morning period with different content each day. Cross-over will be permitted between clinical conferences and review courses.

CLINICAL CONFERENCES 8:30 a.m. – 11:00 a.m.

(Registration unlimited)

MEDICINE **Presbyterian-University Hospital**

Conducted by: Jack D. Myers, M.D., and Staff
Professor and Chairman, Department of Medicine, University of Pittsburgh School of Medicine

PEDIATRICS **Children's Hospital**

Conducted by: Donald N. Medearis, Jr., M.D., and Staff
Professor and Chairman, Department of Pediatrics, University of Pittsburgh School of Medicine

WORKSHOPS 8:30 a.m. – 11:15 a.m.

(Maximum Registration 12-15)

NEW TECHNIQUES IN OBSTETRICS AND GYNECOLOGY **Magee-Women's Hospital**

Director: Donald L. Hutchinson, M.D., Chairman, Department of Obstetrics and Gynecology, Magee-Women's Hospital

Monday—New Techniques in Rh Problems
Tuesday—Instructions in Intrauterine Contraceptive Devices
Wednesday—Cytology in Endocrine Study and Malignancy

INTENSIVE CARE TECHNIQUES **Presbyterian-University Hospital**

Director: Peter Safar, M.D., Professor and Chairman, Department of Anesthesia, University of Pittsburgh School of Medicine

Monday—Teaching Rounds in Intensive Care Unit
Tuesday—Cardiopulmonary Resuscitation Course (Scaife Hall, University of Pittsburgh School of Medicine)
Wednesday—Teaching Rounds in Intensive Care Unit

OBSTRUCTIVE PULMONARY DISEASE **Allegheny General Hospital**

Director: John G. Shively, M.D., Director, Pulmonary Function Laboratory, Allegheny General Hospital

Monday—Clinical Diagnosis
Tuesday—Pulmonary Function Studies
Wednesday—Inhalation Therapy

NEW CONCEPTS IN PHYSICAL MEDICINE AND REHABILITATION **St. Francis General Hospital**

Director: Thomas C. Hohmann, M.D., Medical Director, Department of Physical Medicine and Rehabilitation, St. Francis General Hospital

Monday—Comprehensive Management of Strokes
Tuesday—Physical Medicine in General Practice (Montefiore Hospital)
Wednesday—Neurologic and Myopathic Problems

NEW TECHNIQUES IN RENAL AND CARDIAC DISEASE **Western Pennsylvania Hospital**

Director: Frank M. Mateer, M.D., Chief, Division of Medical Education and Research, Western Pennsylvania Hospital

Monday—Renal Biopsy and Dialysis Techniques
Tuesday—New Procedures in Congestive Heart Failure
Wednesday—Monitoring in the Management of Shock

NEWER TECHNIQUES IN THE MANAGEMENT OF CANCER **Mercy Hospital**

Director: Frank J. Luparello, M.D., Clinical Assistant Professor of Medicine, University of Pittsburgh School of Medicine

Monday—Newer Radiologic and Isotope Diagnostic Teaching
Tuesday—Medical Advances in Lymphoma and Leukemia
Wednesday—Systemic Manifestations of Cancer

REVIEW COURSES 8:30 a.m. – 11:30 a.m.

(Registration unlimited)

CARDIOLOGY (presented by the Pennsylvania Heart Association)

Co-Directors: James J. Leonard, M.D., Associate Professor of Medicine, University of Pittsburgh School of Medicine
Bernard L. Segal, M.D., Associate Professor of Medicine and Head, Auscultation Unit, Hahnemann Medical College

Monday—Coronary Heart Disease—Pathophysiology of cardiac symptoms, usual and unusual clinical manifestations, auscultatory findings, complications, and management.

Tuesday—Rheumatic Heart Disease—Historical Consideration of Cardiac Symptoms, Pathophysiology of Mitral Valve Disease, Auscultatory Features of Mitral Valve Disease, Recent Advances in Auscultation of Mitral Disease, Management of Mitral Disease—Medical and Surgical.

Wednesday—Congenital Heart Disease—Anatomical Classification and Pathology, Clinical Diagnosis, Management.

ARTHRITIS IN PRACTICE (presented by The Arthritis Foundation)

Director: H. M. Margolis, M.D., Clinical Professor of Medicine, University of Pittsburgh School of Medicine

Monday—Skin Manifestations of Collagen Disease, Gout: Pathogenesis of the Acute Attack and of Chronic Tophaceous Gout, What's New on Possible Causes of Rheumatoid Arthritis?, Interpretation of Laboratory Data in Differential Diagnosis of Arthritis

Tuesday—Degenerative Joint Disease; Clinical Features of Systemic Lupus Erythematosus and Its Treatment; Anti-malarials, Gold, and Cytotoxic Agents in the Treatment of Rheumatic Diseases; Gout: Its Clinical Course and Its Treatment

Wednesday—When Surgery for An Arthritic Patient?, What Do You Do for the Rheumatoid Arthritic When He First Appears for Treatment?, Evaluation of Indocin and Other Anti-Inflammatory Drugs in the Management of Rheumatic Diseases, What Adreno-Corticosteroids Contribute in the Management of Arthritis?

SPECIAL CLINICAL CONFERENCE

St. Margaret Memorial Hospital **1:30 p.m.-4:00 p.m.**
265 46th Street, Pittsburgh

Clinical demonstration for small groups relating problems and results in the medical and surgical management of arthritis. These sessions will emphasize the problems and techniques of actual management of arthritics with case presentations and discussion by rheumatologists, orthopedists, and other members of the Comprehensive Care and Rehabilitation Unit of St. Margaret Memorial Hospital.

PENNSYLVANIA MEDICAL SOCIETY
Teaching Session—66
OCTOBER 9-13, 1966 • PITTSBURGH, PA.

CONVENTION PROGRAM, 1966

Practical-Profitable-Pleasant

Revolution is hardly too strong a word for the alteration of our institutions in recent years. I feel you will agree that the social and cultural contrivances of our civilization can be said to be evolving at an increasingly rapid rate. On the other hand, regard for tradition and respect for the past, so strongly developed in most physicians, are not ideal personality traits to meet such cataclysms of evolution. However valuable and respected these characteristics may be, they are not ideally suited for success in times like ours.

It is therefore a pleasure to take note of one part of our Medical Society activity in which we Pennsylvania physicians are meeting or exceeding the demands to produce constructive change. I refer to our coming scientific sessions. Although not the first to try the new, Jerome Chamovitz, as Chairman of our Committee on Convention Program, has taken into account the signs of the times, and has adapted the sessions to the needs of virtually all of our members. The Committee's modifications do not consist of change for the sake of being different, but represent the results of much reflection and work in an effort to produce the most useful program.

Comparison with a variety of current convention sessions was made in order to cull the best of modern ideas. Studies of methods and techniques of previously established value were also carried out. Much discussion was held with a variety of advisors. Through the use of these and other techniques, your Committee has served you well. As a practicing physician, you will be well advised to make prudent use of this opportunity to further your education.

Last year's convention was marked by radical changes. The direction of these innovations is being followed in our 1966 program. But this is not a headlong rush toward something new. The practitioners who were asked to evaluate the 1965 instruction were conscientious in judgment and gave much useful guidance to Dr. Chamovitz and his Committee. This guidance was employed in making decisions concerning the selection of instruction which will be available to you at the Pittsburgh meeting. In place of the large meeting room with a few doctors scattered about listening to a distinguished but frustrated lecturer, you may count on vital, stimulating and pointed presentation, with the emphasis on CONTROVERSY. The program outlines a teaching institute which is offered not by *speakers*, but by *course directors*. The accent is not on lectures, but on instruction in a clinical orientation.

I am convinced the direction which the Committee on Convention Program has taken sets a correct course for the practicing member of the Pennsylvania Medical Society who wants to continue his medical education in an effective manner. I am quick to back up my contention by promising a valuable respite from practice to my fellow practitioners who elect to take advantage of their own graduate education program.

I submit, however, that the student in this program must do what the designers have done—study the curriculum. The student physician must make some effort in order to make effective use of his time (and money, for some courses demand registration fees) in order to get the most good for his own needs.

Pages 1, 2, and 96 through 105 of this issue of PENNSYLVANIA MEDICINE outline the offerings. You have also had a mailing which provides all of the necessary detailed information. Make wise use of your resources in supporting your own graduate education program at this 117th Annual Session.

PITT

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PITT STADIUM

October 8

$5.00 Per Ticket

A block of tickets has been reserved.
Check your convention kit
for complete details.

ANNUAL ORATION

"CONTROVERSY IN TODAY'S MEDICAL EDUCATION"

George T. Harrell, Jr., M.D.
Dean, Milton S. Hershey Medical School

Wednesday, October 12 1:00 p.m.-1:45 p.m.
Pittsburgh Room, Penn-Sheraton Hotel

All physicians attending the Wednesday "Luncheon With the Experts" will have reserved places for the Annual Oration.

JAZZ ON THE TERRACE

Sunday Night Terrace Room Penn Sheraton Hotel
5:30 to 9 p.m.

For dinner, drinks, and the finest in jazz, plan to enjoy the Terrace Room immediately after the Pitt-West Virginia Game.

PENNSYLVANIA
MEDICAL SOCIETY
Teaching Session–66
OCTOBER 9-13, 1966 • PITTSBURGH, PA.

Luncheon wit

Pittsburgh Room, Low

Monday, October 10

11:45 a.m. — 1:15 p.m.

Howard N. Baier, M.D. PULMONARY MANIFESTATIONS IN RHEUMATIC DISEASE
Associate Professor of Medicine, Temple University School of Medicine, Philadelphia

Frank Begg, M.D. CORONARY ARTERIOGRAPHY
Allegheny General Hospital

Isador Brodsky, M.D. THE ANEMIAS
Head, Hematology Section, Department of Medicine, Hahnemann

Carroll F. Burgoon, Jr., M.D. SKIN MANIFESTATIONS OF COLLAGEN DISEASE
Chairman, Department of Dermatology, Temple University School of Medicine

Donald B. Effler, M.D. SURGERY FOR ISCHEMIC HEART DISEASE
Head, Thoracic Surgery Section, Cleveland Clinic

Russell J. Eilers, M.D. CHANGING CONCEPTS IN CLINICAL PATHOLOGY
Professor of Pathology and Director, Clinical Laboratories, University of Kansas Medical Center, Kansas City, Kansas

George E. Farrar, Jr., M.D. DRUG HAZARDS
Medical Director, Wyeth Laboratories, Philadelphia

Donald Fisher, M.D. CARDIAC CATHETERIZATION
Allegheny General Hospital

Edwin Fisher, M.D. THE ROUTINE AUTOPSY
Chief, Laboratory Services, Veterans Administration Hospital, Pittsburgh

Charles K. Friedberg, M.D. CONGESTIVE HEART FAILURE
Department of Cardiology, Mt. Sinai Hospital, New York, N. Y.

Leon D. Goldberg, M.D. PHARMACOLOGY OF CARDIAC THERAPY
Emory University School of Medicine, Atlanta, Ga.

William J. Grace, M.D. CORONARY CARE UNITS
Professor, Clinical Medicine, New York University Medical Center

Thomas C. Hall, M.D. MANAGEMENT CA BREAST
Children's Cancer Research Foundation, Incorporated, Boston, Mass.

Samuel B. Haddon, M.D. GROUP THERAPY IN MEDICINE
Associate Professor of Psychiatry, University of Pennsylvania School of Medicine

Dwight E. Harken, M.D. SURGERY OF VALVULAR HEART DISEASE
Clinical Professor of Surgery, Harvard Medical School, Boston, Mass.

John Helwig, Jr., M.D. EVALUATION OF THE CARDIAC FOR SURGERY
Assistant Professor of Medicine, Temple University School of Medicine

Peter Herbut, M.D. TRENDS IN PATHOLOGY
Professor of Pathology, Jefferson Medical College

Thomas C. Hohmann, M.D. PHYSICAL MEDICINE IN THE MANAGEMENT OF STROKE
Medical Director, Department of Physical Medicine and Rehabilitation, St. Francis General Hospital

Edmund L. Housel, M.D. MANAGEMENT OF HYPERTENSION
Assistant Professor of Clinical Medicine, Jefferson Medical College

S. Benham Kahn, M.D. DRUG REACTIONS
Hahnemann Medical College

Thomas Killip, M.D. CORONARY CARE UNITS
New York Hospital-Cornell Medical Center, New York, N. Y.

Sidney O. Krasnoff, M.D. COMPUTERS IN MEDICINE
Associate in Medicine, Albert Einstein Medical Center, Northern Division

James J. Leonard, M.D. RHEUMATIC HEART DISEASE
Associate Professor of Medicine, University of Pittsburgh School of Medicine

Averill A. Liebow, M.D. THE ROUTINE AUTOPSY
Professor of Pathology, Yale University School of Medicine, New Haven, Conn.

Frank J. Luparello, M.D. NEWER DIAGNOSTIC TECHNIQUES IN CANCER
Clinical Assistant Professor of Medicine, University of Pittsburgh

Harry Margolis, M.D. MANAGEMENT OF RHEUMATOID ARTHRITIS
Clinical Professor of Medicine, University of Pittsburgh School of Medicine

George R. McGovern, M.D. SURGERY OF ACQUIRED VALVULAR DEFECTS
Allegheny General Hospital

Frank M. Mateer, M.D. RENAL DISEASE
Chief, Division of Medical Education and Research, Western Pennsylvania Hospital

Maurice McGregor, M.D. SHOCK IN MYOCARDIAL INFARCTION
Research Director, Cardiac Division, Royal Victoria Hospital, Montreal

Donald N. Medearis, M.D. PEDIATRIC PROBLEMS
Professor and Chairman, Department of Pediatrics, University of Pittsburgh School of Medicine

Lawrence E. Meltzer, M.D. ACUTE MYOCARDIAL INFARCTION
Director, Clinical Investigation, Presbyterian-University of Pennsylvania Medical Center

Malcolm W. Miller, M.D. COMPREHENSIVE APPROACH TO THE ALLERGIC PATIENT
Chief, Medical Service B., Lankenau Hospital

Campbell Moses, Jr., M.D. CORONARY RISK FACTORS
Director, Addison H. Gibson Laboratory, University of Pittsburgh School of Medicine

John H. Moyer, M.D. THERAPY IN HYPERTENSION
Professor and Chairman, Department of Medicine, Hahnemann Medical College

Jack D. Myers, M.D. MANAGEMENT OF LIVER DISEASE
Professor and Chairman, Department of Medicine, University of Pittsburgh School of Medicine

John C. Nunemaker, M.D. NEW AMA ATTITUDES TOWARD INTERNSHIPS
Associate Secretary, Council on Medical Education, AMA, Chicago

Metro Ogryzlo, M.D. LABORATORY AIDS IN DIAGNOSIS OF ARTHRITIS
Chief, Rheumatic Disease Section, School of Medicine, University of Toronto, Canada

Peter N. Pastore, M.D. FUNCTIONAL E.N.T. PROBLEMS
Chairman, Department of Otolaryngology, Medical College of Virginia, Richmond Va.

Mildred C. J. Pfeiffer, M.D. PUBLIC HEALTH ASPECTS OF ARTHRITIS
Chairman, Medical and Scientific Committee, Central Pennsylvania Chapter, Arthritis Foundation, Harrisburg

Charles Rammelkamp, M.D. STREPTOCOCCAL DISEASE
Cleveland Metropolitan General Hospital, Cleveland, Ohio

William Regelson, M.D. CANCER CHEMOTHERAPY
Associate Chief of Medicine, Roswell Park Memorial Institute, Buffalo, N. Y.

Gerald P. Rodman, M.D. SCLERODERMA
Associate Professor of Medicine, University of Pittsburgh School of Medicine

George P. Rosemond, M.D. CA OF THE BREAST
Professor and Co-Chairman, Department of Surgery, Temple University School of Medicine

Henry I. Russek, M.D. ANTICOAGULANT THERAPY
Consultant, Cardiovascular Research and Cardiologist, U. S. Marine Hospital, Staten Island, N. Y.

Bernard I. Segal, M.D. CARDIAC AUSCULTATION
Associate Professor of Medicine, Hahnemann Medical College

William H. Sewell, M.D. CORONARY ARTERIOGRAPHY AND SURGERY
Section, Cardiac Surgery, Guthrie Clinic, Ltd., Sayre

William A. Sodeman, M.D. PROBLEMS IN TODAY'S MEDICAL EDUCATION
Dean, Jefferson Medical College

Martin J. Sokoloff, M.D. CHRONIC OBSTRUCTIVE PULMONARY DISEASES
Clinical Professor of Medicine, Jefferson Medical College

Louis A. Soloff, M.D. CORONARY HEART DISEASE
Division, Cardiology, Temple University School of Medicine

Bertrand L. Stolzer, M.D. ANKYLOSING SPONDYLITIS
Instructor in Medicine, University of Pittsburgh School of Medicine

Katharine R. Sturgis, M.D. CANCER OF THE LUNG
Professor and Chairman, Department of Preventive Medicine, Woman's Medical College

Arthur M. Vineberg, M.D. VINEBERG OPERATION
Royal Victoria Hospital, Montreal, Canada

James Warren, M.D. CORONARY ARTERY DISEASE
Professor of Medicine, Ohio State University, Columbus, Ohio

Robert Wise, M.D. INFECTIOUS DISEASES
Magee Professor and Head of Department of Medicine, Jefferson Medical College

Morris Ziff, M.D. ETIOLOGY OF RHEUMATOID ARTHRITIS
Professor of Internal Medicine, Texas Southwestern Medical School, Dallas, Texas

e Experts

oby, Penn-Sheraton Hotel

PENNSYLVANIA
MEDICAL SOCIETY
Teaching Session—66
OCTOBER 9-13, 1966 • PITTSBURGH, PA.

Tuesday, October 11

11:45 a.m. — 1:15 p.m.

James H. Barr, Jr., M.D. THE "FROZEN SHOULDER"
Instructor in Medicine, University of Pittsburgh School of Medicine

Clayton T. Beecham, M.D. ENDOMETRIOSIS
Geisinger Medical Center, Danville

Frank Begg, M.D. CORONARY ARTERIOGRAPHY
Allegheny General Hospital

Paul A. Bowers, M.D. ORAL CONTRACEPTIVES
Department of Obstetrics and Gynecology, Jefferson Medical College

David Charles, M.D. INDUCTION OF OVULATION
Department of Obstetrics and Gynecology, Magee-Women's Hospital

Thaddeus Danowski, M.D. MANAGEMENT OF OBESITY
Professor of Medicine, University of Pittsburgh School of Medicine

Richard L. Day, M.D. PROBLEMS OF THE NEWBORN
Medical Director, Planned Parenthood—World Population, New York City

Henry Dolger, M.D. NEW CONCEPTS IN DIABETES
Chief, Diabetes Clinic, Mt. Sinai Hospital, New York City

George E. Farrar, Jr., M.D. DRUG HAZARDS
Medical Director, Wyeth Laboratories, Philadelphia

James B. Field, M.D. HYPOGLYCEMIA
University of Pittsburgh School of Medicine

Donald Fisher, M.D. CARDIAC CATHETERIZATION
Allegheny General Hospital

Frederick R. Franke, M.D.
MANAGEMENT OF CONGESTIVE FAILURE
Clinical Assistant Professor of Medicine, University of Pittsburgh School of Medicine

Richard H. Freyberg, M.D. CHEMOTHERAPY OF ARTHRITIS
Clinical Professor of Medicine, Cornell University Medical College, New York City

Alvin F. Goldfarb, M.D. HIRSUTISM
Department of Obstetrics and Gynecology, Jefferson Medical College

Saul Gusberg, M.D. UTERINE CANCER
Director, Obstetrics and Gynecology, Mt. Sinai Hospital, New York City

Michael A. Guthrie, M.D. THERAPEUTIC ABORTION
Chairman, Department of Obstetrics and Gynecology, St. Francis General Hospital, Pittsburgh

Alexander B. Gutman, M.D.
GOUT—ITS CLINICAL COURSE AND ITS TREATMENT
(Including Allopurinol)
Professor of Medicine, Columbia University, New York City

Samuel B. Hadden, M.D. GROUP THERAPY IN MEDICINE
Associate Professor of Psychiatry, University of Pennsylvania School of Medicine

Robert E. Hall, M.D. THERAPEUTIC ABORTION
Columbia-Presbyterian Medical Center, New York City

T. Terry Hayashi, M.D. TOXEMIA OF PREGNANCY
Professor of Obstetrics and Gynecology, University of Pittsburgh School of Medicine

John Helwig, Jr., M.D. PACEMAKERS IN ARRHYTHMIAS
Assistant Professor of Medicine, Temple University School of Medicine

Edmund L. Housel, M.D. MANAGEMENT OF HYPERTENSION
Assistant Professor of Clinical Medicine, Jefferson Medical College

J. F. Hulka, M.D. INTRAUTERINE CONTRACEPTION
Assistant Professor, Department of Obstetrics and Gynecology, University of Pittsburgh School of Medicine

Donald L. Hutchinson, M.D. MANAGEMENT OF RH PROBLEMS
Professor and Chairman, Department of Obstetrics and Gynecology, University of Pittsburgh School of Medicine

Jerrold D. Hydovitz, M.D. ADRENAL DISEASE
Clinical Assistant Professor of Medicine, University of Pittsburgh School of Medicine

Bulent Kirimli, M.D. EMERGENCY RESUSCITATION
Assistant Professor of Anesthesia, University of Pittsburgh School of Medicine

Sidney O. Krasnoff, M.D. COMPUTERS IN MEDICINE
Associate in Medicine, Albert Einstein Medical Center, Northern Division

Laurence H. Kyle, M.D. MANAGEMENT OF HYPERTHYROIDISM
Professor and Chairman, Department of Medicine, Georgetown University School of Medicine, Washington, D. C.

James J. Leonard, M.D. RHEUMATIC HEART DISEASE
Associate Professor of Medicine, University of Pittsburgh School of Medicine

Rachmiel Levine, M.D. MANAGEMENT OF DIABETES
Professor and Chairman, Department of Medicine, New York Medical College, New York City

Jessica Lewis, M.D. COAGULATION PROBLEMS
Assistant Research Professor of Medicine, University of Pittsburgh

Frank J. Luparello, M.D.
NEWER DIAGNOSTIC TECHNIQUES IN CANCER
Clinical Assistant Professor of Medicine, University of Pittsburgh

Farahe Maloof, M.D. RADIOACTIVE IODINE IN THYROID DISEASE
Massachusetts General Hospital, Boston Mass.

Alexander Marble, M.D. DIFFICULT-TO-MANAGE DIABETES
Associate Clinical Professor of Medicine, Harvard Medical School

Harry Margolis, M.D. MANAGEMENT OF RHEUMATOID ARTHRITIS
Clinical Professor of Medicine, University of Pittsburgh School of Medicine

John Martin, M.D. SEPTIC ARTHRITIS
Assistant Professor of Medicine, Temple University Medical Center

E. Perry McCullagh, M.D. DIAGNOSIS IN THYROID DISEASE
Head, Section of Endocrinology and Metabolism, Cleveland Clinic

Louis L. Meyers, M.D. INTRAUTERINE CONTRACEPTION
Clinical Instructor, Obstetrics and Gynecology, University of Pittsburgh School of Medicine

Malcolm W. Miller, M.D.
COMPREHENSIVE APPROACH TO THE ALLERGIC PATIENT
Chief, Medical Service B., Lankenau Hospital

Daniel Mintz, M.D. THERAPY OF THYROID DISEASE
Chief of Medicine, Magee-Women's Hospital

John H. Moyer III, M.D. THERAPY IN HYPERTENSION
Professor and Chairman, Department of Medicine, Hahnemann Medical College

Robert E. Olson, M.D. MANAGEMENT OF OBESITY
Professor and Head, Department of Biochemistry, St. Louis University

Mary DeWitt Pettit, M.D. ORAL CONTRACEPTIVES
Professor and Chairman, Department of Obstetrics and Gynecology, Woman's Medical College

Marvin R. Plesset, M.D. PSYCHIATRIC ASPECTS OF OBESITY
Clinical Assistant Professor of Psychiatry, University of Pittsburgh

George P. Rosemond, M.D. SURGERY OF PEPTIC ULCER
Professor and Co-Chairman, Department of Surgery, Temple University School of Medicine

Samuel Sherman, M.D.
PHYSICAL MEDICINE IN EVERYDAY PROBLEMS
Chief, Physical Medicine and Rehabilitation, Montefiore and Passavant Hospitals

Laurence E. Shulman, M.D. LUPUS ERYTHEMATOSUS
Assistant Professor of Medicine, Johns Hopkins School of Medicine

Charles R. Shuman, M.D. ORAL HYPOGLYCEMIC AGENTS
Clinical Professor of Medicine, Temple University School of Medicine

William A. Sodeman, M.D.
PROBLEMS IN TODAY'S MEDICAL EDUCATION
Dean, Jefferson Medical College

Martin J. Sokoloff, M.D. OCCUPATIONAL LUNG DISEASES
Clinical Professor of Medicine, Jefferson Medical College

Katharine R. Sturgis, M.D. CANCER OF THE LUNG
Professor and Chairman, Department of Preventive Medicine, Woman's Medical College

Hans Waine, M.D. DEGENERATIVE JOINT DISEASE
Associate Professor of Preventive Medicine, Tufts University School of Medicine, Boston, Mass.

Lennard L. Weber, M.D. INTRAUTERINE FETAL TRANSFUSIONS
Department of Obstetrics and Gynecology, University of Pennsylvania School of Medicine

Nathan Sussman, M.D. PHYSICAL THERAPY IN ARTHRITIS
Chairman, Arthritis Foundation, Central Pennsylvania Chapter, Harrisburg

George R. McGovern, M.D.
SURGERY OF ACQUIRED VALVULAR DEFECTS
Allegheny General Hospital

Harold Rosen, M.D. HYPNOSIS IN MEDICAL PRACTICE
Associate Professor of Psychiatry, Johns Hopkins School of Medicine

Margaret J. MacLachlan, M.D. SPONDYLITIS
Head of Rheumatologic Disease Section, Western Pennsylvania Hospital

LUNCHEONS, continued

Wednesday, October 12

11:45 a.m. — 1:00 p.m.

Bernard J. Alpers, M.D. MEDICAL MANAGEMENT OF STROKES
Professor and Head, Department of Neurology, Jefferson Medical College

Mark D. Altschule, M.D. INTRACTABLE CONGESTIVE HEART FAILURE
Assistant Professor of Medicine, Harvard Medical School, Boston, Mass.

Frank J. Ayd, Jr., M.D. TRANQUILIZERS
Editor, International Drug Therapy Newsletter, Baltimore, Md.

S. Richard Bauersfeld, M.D. CONGENITAL HEART DISEASE
Associate Professor of Pediatrics, Children's Hospital

Frank Begg, M.D. CORONARY ARTERIOGRAPHY
Allegheny General Hospital

Homer V. Capparell, M.D. SUICIDES
Clinical Associate Professor of Psychiatry, University of Pittsburgh School of Medicine

Peter M. Carmichael, M.D. CHRONIC DISEASE SCREENING
Geriatric and Metabolic Disease Section, Pennsylvania Department of Health

Roderick W. Cook, Jr., M.D.
GROUP MEDICAL CARE FOR THE ARTHRITIC
President, Arthritis Foundation, Central Pennsylvania Chapter, Harrisburg

Lester A. Dunmire, M.D. MONITORING IN SHOCK
Western Pennsylvania Hospital

Carl H. Eisenbeis, Jr., M.D. COMPREHENSIVE CARE IN ARTHRITIS
Instructor in Medicine, University of Pittsburgh School of Medicine

George E. Farrar, Jr., M.D. DRUG HAZARDS
Medical Director, Wyeth Laboratories, Philadelphia

Donald Fisher, M.D. CARDIAC CATHETERIZATION
Allegheny General Hospital

Fritz A. Freyhan, M.D. THE ENERGIZERS
Director, Research, Department of Psychiatry, St. Vincent Hospital and Medical Center, New York City

Robert Gibson, M.D. TRANQUILIZERS
Clinical Director, Shepperd and Enoch Pratt Hospital, Towson, Md.

Thomas M. Glushien, M.D. POSTOPERATIVE RESPIRATORY CARE
Peter B. Brigham Hospital, Boston, Mass.

Phillip Gordy, M.D. INTRACRANIAL HEMORRHAGE
Professor of Neurosurgery, Jefferson Medical College

Mayer Green, M.D. MANAGEMENT OF BRONCHIAL ASTHMA
Clinical Assistant Professor of Dermatology, University of Pittsburgh School of Medicine

C. William Hanson, M.D. ANTIBIOTIC THERAPY
Hospital of the University of Pennsylvania

Herbert S. Heineman, M.D.
CONTRAINDICATIONS TO ANTIBIOTIC THERAPY
Assistant Professor of Medicine and Microbiology, University of Pittsburgh School of Medicine

John Helwig, Jr., M.D. PACEMAKERS IN ARRHYTHMIAS
Assistant Professor of Medicine, Temple University School of Medicine

Joseph L. Hollander, M.D. STEROIDS IN ARTHRITIS
Professor of Medicine, University of Pennsylvania School of Medicine

William Hollander, M.D. DIAGNOSIS OF HYPERTENSION
Associate Professor of Medicine, Boston University School of Medicine

Edmund L. Housel, M.D. MANAGEMENT OF HYPERTENSION
Assistant Professor of Clinical Medicine, Jefferson Medical College

Sydney H. Kane, M.D.
COMPUTERS IN OBSTETRICAL AND PERI-NATAL CARE
Philadelphia

Sidney O. Krasnoff, M.D. COMPUTERS IN MEDICINE
Associate in Medicine, Albert Einstein Medical Center, Northern Division

Peter Kuo, M.D. MANAGEMENT OF ATHEROSCLEROSIS
Associate Professor of Medicine, University of Pennsylvania School of Medicine

Frank J. Luparello, M.D.
NEWER DIAGNOSTIC TECHNIQUES IN CANCER
Clinical Assistant Professor Medicine, University of Pittsburgh School of Medicine

Herbert C. Mansmann, Jr., M.D.
CONTROVERSIAL ASPECTS OF HYPOSENSITIZATION
Clinical Assistant Professor of Pediatrics, University of Pittsburgh School of Medicine

Currier McEwen, M.D. SURGERY FOR ARTHRITIS
New York University Medical Center, New York City

Milton Mendlowitz, M.D. CURABLE HYPERTENSION
Chief, Hypertension Clinic, Mt. Sinai Hospital, New York City

John S. Meyer, M.D. MANAGEMENT OF STROKE
Professor and Chairman, Department of Neurology, Wayne State University, Detroit, Michigan

John Moossy, M.D. THE EPILEPSIES
Professor of Neuropathology, University of Pittsburgh School of Medicine

Campbell Moses, Jr., M.D. CORONARY RISK FACTORS
Director, Addison H. Gibson Laboratory, University of Pittsburgh School of Medicine

John H. Moyer III, M.D. THERAPY IN HYPERTENSION
Professor and Chairman, Department of Medicine, Hahnemann Medical College

Joseph Novak, M.D. PHYSICAL MEDICINE IN STROKE
Clinical Instructor in Orthopedic Surgery, University of Pittsburgh School of Medicine

Hobart A. Reimann, M.D. FEVER OF UNKNOWN ORIGIN
Professor of Medicine, Hahnemann Medical College

Walter J. Reis, M.D.
TRANQUILIZERS AND ENERGIZERS IN PRIVATE PRACTICE
Clinical Assistant Professor of Psychiatry, University of Pittsburgh School of Medicine

Charles G. Rob, M.D. SURGERY IN ARTERIAL DISEASE
Chairman, Department of Surgery, University of Rochester School of Medicine, Rochester, N.Y.

Gerald P. Rodman, M.D. COLLAGEN DISEASE
Associate Professor of Medicine, University of Pittsburgh School of Medicine

George P. Rosemond, M.D. BOWEL OBSTRUCTION
Professor and Co-Chairman, Department of Surgery, Temple University School of Medicine

Alvin P. Shapiro, M.D. RENAL HYPERTENSION
Associate Professor of Medicine, University of Pittsburgh School of Medicine

John G. Shively, M.D. PULMONARY EMBOLISM
Director, Pulmonary Function Laboratory, Allegheny General Hospital

Charley J. Smyth, M.D. DRUGS IN ARTHRITIS
University of Colorado Medical Center, Denver, Colorado

William A. Sodeman, M.D.
PROBLEMS IN TODAY'S MEDICAL EDUCATION
Dean, Jefferson Medical College

Martin J. Sokoloff, M.D. CHRONIC OBSTRUCTIVE PULMONARY DISEASE
Clinical Professor of Medicine, Jefferson Medical College

James Sydney Stillman, M.D. THERAPY OF RHEUMATOID ARTHRITIS
Robert Breck Brigham Hospital, Boston, Mass.

Francis J. Sweeney, Jr., M.D. WHICH ANTIBIOTIC?
Assistant Professor of Medicine, Jefferson Medical College

George J. Wright, Jr., M.D. HEADACHES
Pittsburgh

Oglesby Paul, M.D. CORONARY HEART DISEASE
Professor of Medicine, Northwestern University School of Medicine, Chicago, Ill.

Louis C. Johnston, M.D. MANAGEMENT OF HYPERTENSION
Clinical Associate Professor of Medicine, University of Illinois College of Medicine, Chicago, Ill.

Kenneth M. Schreck, M.D. ANTIBIOTIC THERAPY
Associate Professor of Medicine, Temple University School of Medicine

Richard T. Smith, M.D. CHRYSOTHERAPY IN RHEUMATOID ARTHRITIS
Chief, Arthritis Clinic, Franklin Hospital, Philadelphia

James R. Zueberbuhler, M.D. CONGENITAL HEART DISEASE
Clinical Instructor in Pediatrics, University of Pittsburgh School of Medicine

A New Approach To PMS Convention Programs

Controversy in the Practice of Medicine

featuring: Panels on Controversial Subjects

MONDAY, OCTOBER 10

CORONARY HEART DISEASE

1:30 p.m.—2:30 p.m

PANEL 1

CURRENT SURGICAL APPROACH TO CORONARY ARTERY DISEASE— HOW SUCCESSFUL TO DATE?

Moderator: Louis A. Soloff, M.D.
Professor of Clinical Medicine, Temple University School of Medicine

Charles K. Friedberg, M.D.
Mount Sinai Hospital, New York City

Donald B. Effler, M.D.
Cleveland Clinic

William H. Sewell, M.D.
Guthrie Clinic

Dwight E. Harken, M.D.
Harvard Medical School

Arthur M. Vineberg, M.D.
Royal Victoria Hospital, Montreal

2:30 p.m.—3:30 p.m.

PANEL 2

CORONARY CARE UNITS— TIGER BY THE TAIL?

Moderator: James Warren, M.D.
Professor of Medicine, Ohio State University

Thomas Killip, III, M.D.
New York Hospital—Cornell Medical Center

Lawrence E. Meltzer, M.D.
Presbyterian-University of Pennsylvania Medical Center

Dwight E. Harken, M.D.
Harvard Medical School

William J. Grace, M.D.
New York University School of Medicine

4:00 p.m.—5:00 p.m.

PANEL 3

VASOCONSTRICTORS AND VASODILATORS— HAS CLINICAL EXPERIENCE JUSTIFIED THEIR USE IN ACUTE AND CHRONIC CORONARY HEART DISEASE?

Moderator: Charles K. Friedberg
Mt. Sinai Hospital, New York City

Maurice McGregor, M.D.
Royal Victoria Hospital, Montreal

Henry I. Russek, M.D.
U.S. Marine Hospital, Staten Island

William H. Sewell, M.D.
Guthrie Clinic

Leon D. Goldberg, M.D.
Emory University School of Medicine, Atlanta

GENERAL MEDICAL PROBLEMS

1:30 p.m.—2:30 p.m

PANEL 4

ROUTINE AUTOPSY— HAS IT OUTLIVED ITS USEFULNESS?

Moderator: Averill A. Liebow, M.D.
Professor of Pathology, Yale University School of Medicine

Edwin Fisher, M.D.
VA Hospital, Pittsburgh

Jack D. Myers, M.D.
University of Pittsburgh School of Medicine

Peter A. Herbut, M.D.
Jefferson Medical College

Russell J. Eilers, M.D.
University of Kansas Medical Center

John C. Nunemaker, M.D.
Council on Medical Education, American Medical Association

2:30 p.m.—3:30 p.m.

PANEL 5

CANCER CHEMOTHERAPY— WHAT DOES IT REALLY ACCOMPLISH?

Moderator: Isadore Brodsky, M.D.
Head, Hematology Section, Department of Medicine, Hahnemann Medical College

Thomas C. Hall, M.D.
Children's Cancer Research Foundation, Inc., Boston

Wallace N. Jensen, M.D.
University of Pittsburgh School of Medicine

S. Benham Kahn, M.D.
Hahnemann Medical College

William Regelson, M.D.
Roswell Park Memorial Institute, Buffalo

4:00 p.m.—5:00 p.m.

PANEL 6

TONSILLECTOMY— WHERE DO WE DRAW THE LINE?

Moderator: Robert I. Wise, M.D.
Magee Professor and Head, Department of Medicine, Jefferson Medical College

Peter N. Pastore, M.D.
Medical College of Virginia

Charles H. Rammelkamp, M.D.
Cleveland Metropolitan General Hospital

Carl C. Fischer, M.D.
Hahnemann Medical College

Bruce B. MacMillan, M.D.
University of Pittsburgh School of Medicine

TUESDAY, OCTOBER 11

OBSTETRICS & GYNECOLOGY

ENDOCRINOLOGY

1:30 p.m.—2:30 p.m.

PANEL 7

THERAPEUTIC ABORTION— TOO OFTEN OR NOT ENOUGH?

Moderator: **Robert E. Hall, M.D.**
Assistant Clinical Professor, Obstetrics & Gynecology, Columbia-Presbyterian Medical Center

Paul A. Bowers, M.D.
Jefferson Medical College

Richard L. Day, M.D.
Planned Parenthood—World Population, New York City

Michael A. Guthrie, M.D.
St. Francis Hospital, Pittsburgh

Samuel Polsky, Ph.D., LLB
Temple University School of Medicine

Harold Rosen, M.D.
Johns Hopkins University School of Medicine, Baltimore

PANEL 10

DIABETES— DOES STRICT THERAPY PREVENT OR CONTROL COMPLICATIONS?

Moderator: **Rachmiel Levine, M.D.**
Professor and Chairman, Department of Medicine, New York Medical College

Charles R. Shuman, M.D.
Temple University School of Medicine

James B. Field, M.D.
University of Pittsburgh School of Medicine

Alexander Marble, M.D.
Harvard Medical School

Henry Dolger, M.D.
Mt. Sinai Hospital, New York City

2:30 p.m.—3:30 p.m.

PANEL 8

THERAPY OF THE POST-MENOPAUSE— ESTROGENS FOREVER?

Moderator: **T. Terry Hayashi, M.D.**
Professor of Obstetrics & Gynecology, University of Pittsburgh School of Medicine

Saul B. Gusberg, M.D.
Mount Sinai Hospital, New York City

David Charles, M.D.
Magee-Women's Hospital

Clayton T. Beecham, M.D.
Geisinger Medical Center

PANEL 11

RADIOACTIVE IODINE— HAS IT LIVED UP TO ITS ORIGINAL PROMISE IN DIAGNOSIS AND THERAPY?

Moderator: **Daniel Mintz, M.D.**
Chief of Medicine, Magee-Women's Hospital

Jerrold D. Hydovitz, M.D.
University of Pittsburgh School of Medicine

Laurence H. Kyle, M.D.
Georgetown University School of Medicine, Washington, D.C.

Farahe Maloof, M.D.
Massachusetts General Hospital, Boston

E. Perry McCullagh, M.D.
Cleveland Clinic

4:00 p.m.—5:00 p.m.

PANEL 9

THE PILL— IS IT SAFE?

Moderator: **Mary DeWitt Pettit, M.D.**
Professor and Chairman, Department of Obstetrics and Gynecology, Woman's Medical College

J. F. Hulka, M.D.
University of Pittsburgh School of Medicine

Alvin F. Goldfarb, M.D.
Jefferson Medical College

Jessica Lewis, M.D.
University of Pittsburgh School of Medicine

Lennard L. Weber, M.D.
University of Pennsylvania School of Medicine

PANEL 12

OBESITY— DO WE REALLY UNDERSTAND IT?

Moderator: **Thaddeus S. Danowski, M.D.**
Professor of Medicine, University of Pittsburgh School of Medicine

LeRoy W. Earley, M.D.
University of Pittsburgh School of Medicine

Robert E. Olson, M.D.
St. Louis University School of Medicine

WEDNESDAY, OCTOBER 12

THERAPEUTICS

VASCULAR DISEASE

2:00 p.m.—3:00 p.m.

PANEL 13

ANTIBIOTIC THERAPY—
HOW CAN WE CREATE ORDER OUT OF CHAOS?

Moderator: Hobart A. Reimann, M.D.
Professor of Medicine, Hahnemann Medical College

Francis J. Sweeney, Jr., M.D.
Jefferson Medical College

Herbert S. Heineman, M.D.
University of Pittsburgh School of Medicine

C. William Hanson, M.D.
University of Pennsylvania School of Medicine

Kenneth M. Schreck, M.D.
Temple University School of Medicine

PANEL 16

ARTERIOSCLEROSIS—
HOW IMPORTANT IS DIET IN PROPHYLAXIS AND TREATMENT?

Moderator: Campbell Moses, Jr., M.D.
Director, Addison H. Gibson Laboratory, University of Pittsburgh School of Medicine

Mark D. Altschule, M.D.
Harvard Medical School

Peter Kuo, M.D.
University of Pennsylvania School of Medicine

Margaret Albrink, M.D.
West Virginia University School of Medicine, Morgantown

Oglesby Paul, M.D.
Northwestern University School of Medicine, Chicago

3:00 p.m.—4:00 p.m.

PANEL 14

MANAGEMENT OF ARTHRITIS—
WHAT DOES LONG-TERM CHEMOTHERAPY REALLY ACCOMPLISH?

Moderator: Harry M. Margolis, M.D.
Clinical Associate Professor of Medicine, University of Pittsburgh School of Medicine

Currier McEwen, M.D.
New York University Medical Center

Charley J. Smyth, M.D.
University of Colorado Medical Center

Joseph L. Hollander, M.D.
University of Pennsylvania School of Medicine

James Sydney Stillman, M.D.
Robert Breck Brigham Hospital, Boston

Gerald P. Rodnan, M.D.
University of Pittsburgh School of Medicine

PANEL 17

CEREBROVASCULAR DISEASE—
HAVE SURGERY, ANTICOAGULANTS AND VASODILATORS PROVED THEIR WORTH?

Moderator: John Moossy, M.D.
Professor of Neuropathology, University of Pittsburgh School of Medicine

Phillip Gordy, M.D.
Jefferson Medical College

Sydney Louis, M.D.
Bellevue Hospital, New York City

Charles Rob, M.D.
University of Rochester School of Medicine

Bernard J. Alpers, M.D.
Jefferson Medical College

John Stirling Meyer, M.D.
Wayne State University School of Medicine

4:15 p.m.—5:15 p.m.

PANEL 15

HAVE TRANQUILIZERS AND ENERGIZERS LIVED UP TO EXPECTATIONS?

Moderator: Homer V. Capparell, M.D.
Clinical Associate Professor of Psychiatry, University of Pittsburgh School of Medicine

Frank J. Ayd, Jr., M.D.
Editor, International Drug Therapy Newsletter, Baltimore

Fritz A. Freyhan, M.D.
St. Vincent Hospital and Medical Center, New York City

J. Martin Myers, M.D.
University of Pennsylvania Hospital

Walter J. Reis, M.D.
University of Pittsburgh School of Medicine

Robert Gibson, M.D.
Shepperd and Enoch Pratt Hospital, Towson, Md.

PANEL 18

HYPERTENSION—
WHAT DOES THERAPY REALLY ACCOMPLISH?

Moderator: John H. Moyer, Jr., M.D.
Professor and Chairman, Department of Internal Medicine, Hahnemann Medical College

William Hollander, M.D.
Boston University

Alvin P. Shapiro, M.D.
University of Pittsburgh School of Medicine

Milton Mendlowitz, M.D.
Mount Sinai Hospital, New York City

Frank A. Finnerty, Jr., M.D.
District of Columbia General Hospital, Washington

Louis C. Johnston, M.D.
University of Illinois College of Medicine, Chicago, Illinois

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Contraindications: Allergic or idiosyncratic reactions to carisoprodol.

Precautions: 'Soma', like other central nervous system depressants, should be used with caution in patients with known propensity for taking excessive quantities of drugs and in patients with known sensitivity to compounds of similar chemical structure, e.g., meprobamate.

Side Effects: The only side effect reported with any frequency is sleepiness, usually on higher than recommended doses. An occasional patient may not tolerate carisoprodol because of an individual reaction, such as a sensation of weakness. Other rarely observed reactions have included dizziness, ataxia, tremor, agitation, irritability, headache, increase in eosinophil count, flushing of face, and gastrointestinal symptoms.

One instance each of pancytopenia and leukopenia, occurring when carisoprodol was administered with other drugs, has been reported, as has an instance of fixed drug eruption with carisoprodol and subsequent cross reaction to meprobamate. Rare allergic reactions, usually mild, have included one case each of anaphylactoid reaction with mild shock and angioneurotic edema with respiratory difficulty, both reversed with appropriate therapy. In cases of allergic or hypersensitivity reactions, carisoprodol should be discontinued and appropriate therapy initiated. Suicidal attempts may produce coma and/or mild shock and respiratory depression.

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SQUIBB NOTES ON THERAPY

Breast-feeding and the "modern mother"

Despite a mild resurgence of interest in the importance of breast-feeding a few years ago, many women today do not choose to nurse their young. This is for a variety of reasons—social, economic, cultural and sometimes medical. In such cases the physician's task is to find the most suitable means of preventing lactation and easing the pain of breast engorgement.

The means of therapy

The value of hormone therapy for this indication is of course well established. Both androgen and estrogen are known to inhibit the production and secretion of the lactogenic hormone by the anterior pituitary. As estrogen levels decline sharply at parturition, lactogenesis is established. When androgen and estrogen are administered to the patient before the release of the lactogenic hormone lactation and breast engorgement are usually prevented.

The time of therapy

The time of administration of this combined medication is crucial; it must be given early enough to suppress the pituitary prolactin and last long enough to permit physiologic readjustment during the puerperium. Excellent results are most often seen when therapy is administered before the onset of the second stage of labor.

However, factors other than effectiveness must also be considered. The agent selected should not interfere in any way with parturition, subsequent uterine involution and the restoration of normal ovarian cyclic function. Furthermore, it should not cause rebound breast engorgement or other manifestations of hormonal imbalance.

A balanced formulation

Providing single-dose therapy for the prevention of lactation and breast engorgement, Deladumone OB is a potent androgen-estrogen combination with a prolonged action. The optimal balance of androgenic and estrogenic hormones achieved in this preparation minimizes the disadvantages inherent in single hormone therapy, such as rebound breast engorgement. Involution of the uterus and resumption of menstrual cycles are not affected.

As reported in a recent published study (Roser, D. M.: Obstet. & Gynec. *27*:73, 1966), Deladumone OB provided good suppression of breast engorgement in 95.3% and suppression of lactation in 81.1% of 86 obstetrical patients. These results are in general agreement with those of many earlier investigations; in several studies this injectable androgen-estrogen combination proved to be superior to oral medication.

Dosage:

As a single injection of 2 cc. before the onset of the second stage of labor.

Contraindications:

Established or suspected mammary cancer or genital malignancy.

Precautions and Side Effects:

Certain patients may be unusually responsive to either estrogenic or androgenic therapy. In such individuals virilization, uterine bleeding or mastodynia may occur.

Supply:

Deladumone OB, providing 180 mg. testosterone enanthate and 8 mg. estradiol valerate per cc., is available in 2 cc. Unimatic® disposable syringes and in 2 cc. vials. Both preparations are dissolved in sesame oil, with 2% benzyl alcohol as a preservative. *Before use, consult product literature for full prescribing information.*

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Namik Ersoz, 638 Southcrest Court, Pittsburgh 15226.
Michael P. Levis, 7026 Jenkins Arcade, Pittsburgh 15222.
Margaret J. MacLachlan, 1133 Wightman Street, Pittsburgh 15217.
Edward H. Slagle, 552 North Neville Street, Pittsburgh 15213.
Walter M. Tripp, Presbyterian-University Hospital, Pittsburgh 15213.

PHILADELPHIA COUNTY:

Anne U. Barnes, Philadelphia State Hospital, Philadelphia 19154.
Frederick B. Bauer, 932 West Godfrey Avenue, Philadelphia 19120.
Isak Benezra, 6060 Crescentville Road, Apt. E, B-12, Philadelphia 19120.
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Paul W. Boyles, 205 Lenape Drive, Berwyn 19312.
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Gunter R. Haase, 3400 North Broad Street, Philadelphia 19140.
Roy G. Holly, 1025 Walnut Street, Philadelphia 19107.
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Osvaldo Ramirez, 230 North Broad Street, Philadelphia 19102.
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CANCER FORUM PAGE

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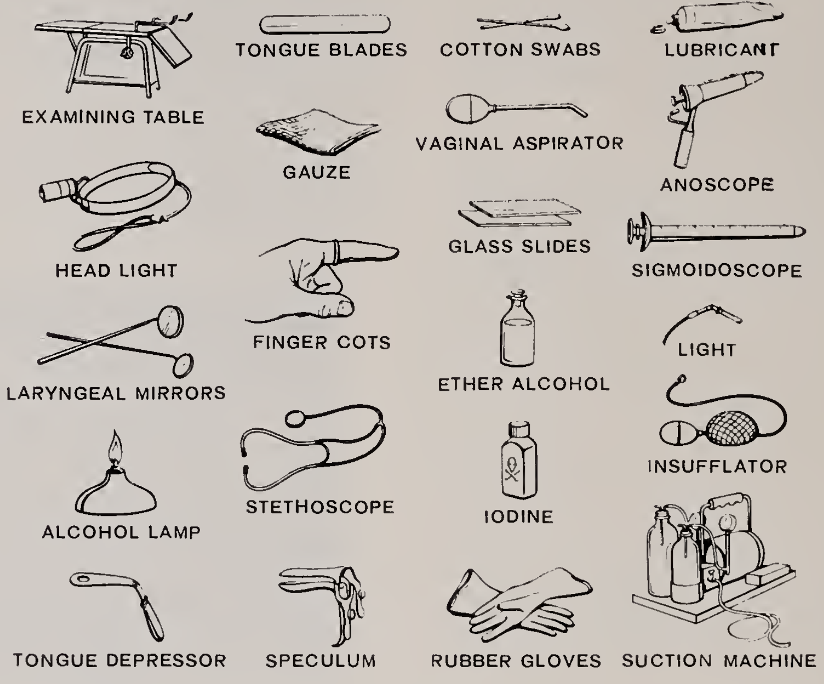

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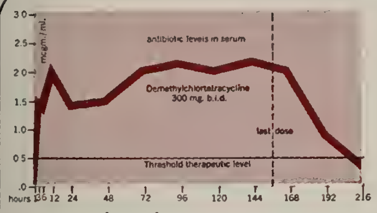
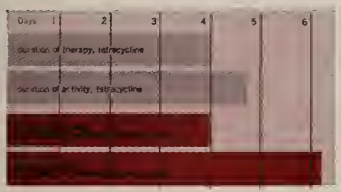


high activity

From Sweeney, W. M., Dornbush, A. C., and Hardy, S. M.; Amer. J. Med. Sci. 243 296 (Mar.) 1962



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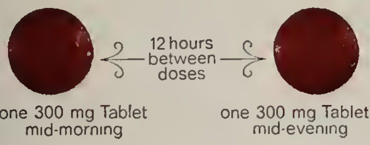

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Precautions and Side Effects—Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. Use of demethylchlortetracycline during tooth development (last trimester of pregnancy, neonatal period and early childhood) may cause discoloration of the teeth (yellow-grey-brownish). This effect occurs mostly during long-term use but has also been observed in short treatment courses. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment. Side reactions include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and dermatitis. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Anaphylactoid reactions have been reported.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products.
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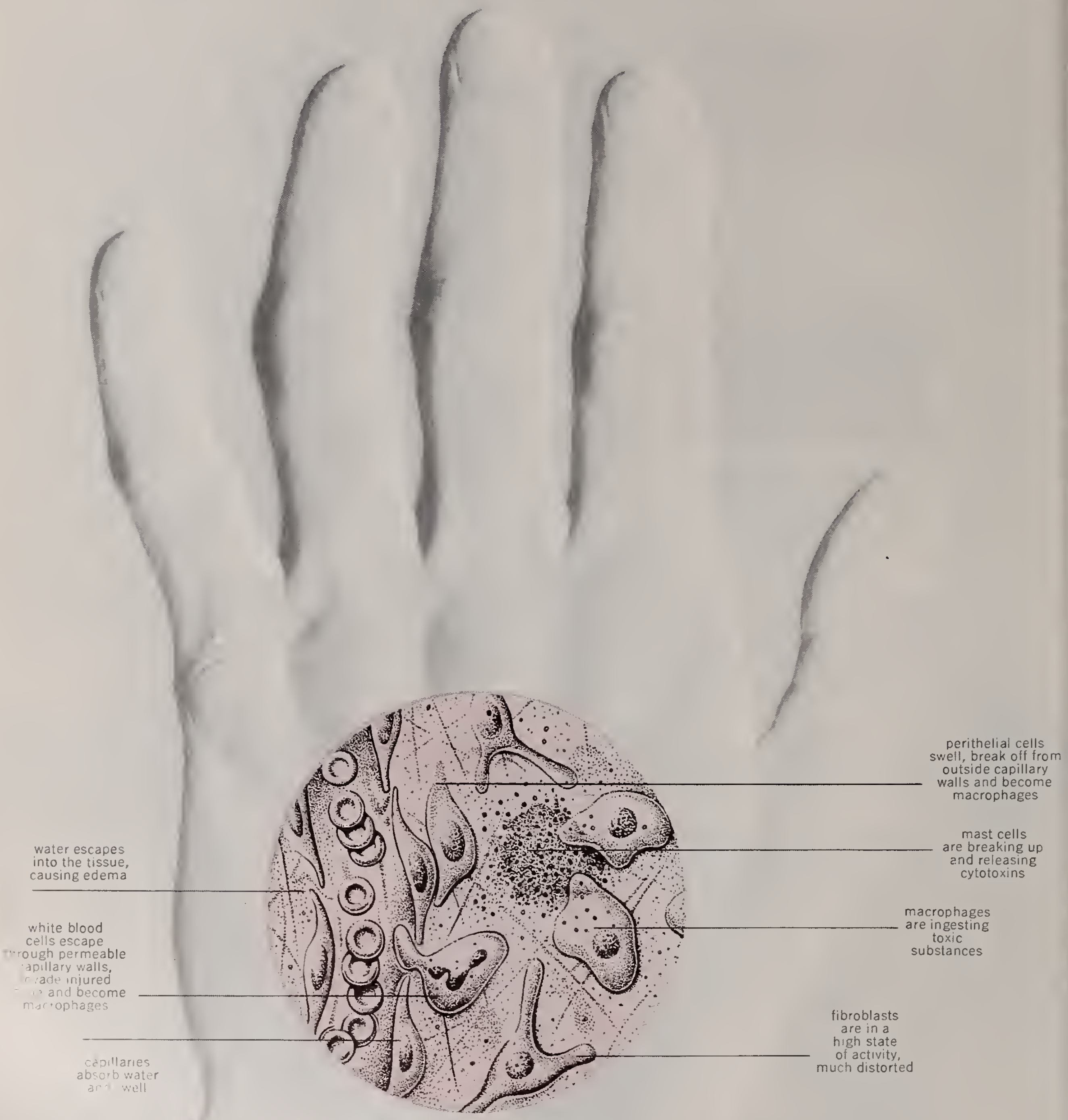
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Contraindications: Tuberculous, fungal, and most viral lesions of the skin, (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of its components. **Precautions:** Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. The neomycin in Neo-Synalar Cream rarely produces allergic reactions. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. Where severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. **Side Effects:** Side effects are not ordinarily encountered with topically applied corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions.

References: 1. Kanee, B.: Canad Med Ass J 88:999 (May 18) 1963. 2. Scholtz, J. R.: Calif Med 95:224 (Oct.) 1961. 3. Jansen, G. T., Dillaha, C. J., and Honeycutt, W. M.: Arch Derm 92:283 (Sept.) 1965.

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SQUIBB NOTES ON THERAPY

MOLECULAR REMODELING–

laboratory exercise or clinical necessity?

More than twenty-five years have passed since the discovery of the diuretic activity of sulfanilamide started pharmacologists on a succession of molecular remodelings to find the ideal diuretic.

Diuresis—a sought-after clinical effect from an unwanted side effect

It started in 1937 when a clinician reported that the administration of a sulfonamide was sometimes accompanied by an unexplainable side effect—metabolic acidosis.[1] Three years later the side effect was explained. The sulfonamide radical of sulfanilamide inhibited carbonic anhydrase,[2] the enzyme responsible for converting carbon dioxide and water to hydrogen ions and bicarbonate ions.

Later, other investigators showed by dog experiments that metabolic acidosis probably resulted when the inhibition of carbonic anhydrase upset the exchange of hydrogen and sodium ions, causing increased excretion of sodium as the bicarbonate.[3]

It was twelve long years after the first report of the unexplainable side effect (metabolic acidosis) that it was finally shown that large doses of sulfanilamide administered to edematous patients were indeed capable of promoting diuresis.[4] However, the possibility of toxic effects from its prolonged use and its relatively weak diuretic action made it impractical for clinical use as a diuretic.[5]

Because the inhibition of carbonic anhydrase seemed to be the key to effective diuresis, investigators began to look for more potent enzyme inhibitors —in the hopes that they would be more effective diuretics.

The most important of these early compounds, acetazolamide, enjoyed several years of fairly wide clinical use.

Its carbonic anhydrase inhibitory activity was several hundred times greater than that of sulfanilamide.[6] The increase in inhibitory activity, however, increased not only the excretion of sodium and bicarbonate ions, but also the excretion of potassium.[7] And, like its predecessor, acetazolamide precipitated mild acidosis. Its prolonged use could result in hypokalemic acidosis.[7]

The 'thiazides'—an answer to the metabolic acidosis caused by carbonic anhydrase inhibition

Despite the fact that the sulfonamide group appeared to be responsible for carbonic anhydrase inhibition which in turn appeared to be responsible for diuresis, investigators began to synthesize compounds with structural alterations to the sulfonamide group.

The first major breakthrough came with the synthesis of chlorothiazide. Altering the sulfonamide group did indeed alter the ability of chlorothiazide to inhibit carbonic anhydrase—it was only 1/10th as potent as acetazolamide in inhibiting the enzyme.[8] Despite the drop in inhibitory potency, however, chlorothiazide proved to be an effective diuretic—an observation that led to the conclusion that its diuretic action was due to some mechanism other than its action on carbonic anhydrase.[9,10]

For effective diuresis, chlorothiazide was administered in daily dosages ranging from 250 to 2000 mg.[11] It increased the excretion of sodium and chloride; and, to a lesser extent, potassium and bicarbonate.[11] The excretion of potassium appeared to be maximal at higher dose levels at which, theoretically, the carbonic anhydrase inhibitory effect is more active.[11] Its prolonged use, therefore, could sometimes result in metabolic hypokalemic, hypochloremic alkalosis.[7]

Naturetin—effective diuresis with more favorable electrolyte balance

Other thiazides followed—with improvements being aimed at two particular areas: 1. attempts to increase diuretic action in relation to the milligram potency of the drug, and 2. attempts at a more favorable sodium/potassium ratio in the urine, i.e., to decrease the excretion of potassium while maintaining the excretion of sodium.[12]

One of these, Naturetin, Squibb Bendroflumethiazide, has made advances on both these points. "By adding a 3-benzyl radical to hydroflumethiazide a rather dramatic reduction in dose range is accomplished. With this drug, effective sodium excretion is obtained with doses between 2.5 and 10 mg., which is a 200 to 1 ratio as compared to chlorothiazide..."[13]

Moreover, due probably to its virtual lack of carbonic anhydrase inhibition, Naturetin (bendroflumethiazide) has been shown to cause less potassium and bicarbonate loss and less alteration in urinary pH than either chlorothiazide or hydrochlorothiazide.

Naturetin is outstandingly effective not only in establishing, but also in maintaining, excretion of retained fluid in edematous patients. And its duration of action is sufficiently prolonged to allow a single daily administration in most patients. Naturetin is also an effective antihypertensive agent.

Contraindications: Severe renal impairment; previous hypersensitivity.

Warning: Ulcerative small bowel lesions have occurred with potassium-containing thiazide preparations or with enteric-coated potassium salts supplementally. Stop medication if abdominal pain, distension, nausea, vomiting, or G.I. bleeding occur.

Precautions: The dosage of ganglionic blocking agents, veratrum, or hydralazine when used concomitantly must be reduced by at least 50% to avoid orthostatic hypotension. Electrolyte disturbances are possible in cirrhotic or digitalized patients.

Side Effects: Bendroflumethiazide may cause increases in serum uric acid, unmask diabetes, increase glycemia and glycosuria in diabetic patients and may cause hypochloremic alkalosis, hypokalemia; cramps, pruritus, paresthesias, and rashes may occur.

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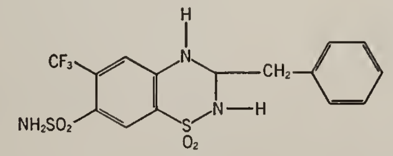
References: **1.** Southworth, H.: Proc. Soc. Exper. Biol. & Med. *36*:58, 1937. **2.** Mann, T. and Keilin, D.: Nature *146*:164, 1940. **3.** Pitts, R. F., and Alexander, R. S.: Am. J. Physiol. *144*:239, 1945. **4.** Schwartz, W. B.: New England J. Med. *240*:173, 1949. **5.** Friedberg, C. K., in Moyer, J. H., and Fuchs, M.: Edema Mechanisms and Management, Philadelphia, W. B. Saunders Co., 1960, p. 259. **6.** Cumming, J. R.; Tabachnick, E., and Seelig, M., in Moyer, J. H., and Fuchs, M.: op. cit., p. 254. **7.** Werko, L., in Moyer, J. H., and Fuchs, M.: op. cit., p. 188. **8.** Beyer, K. H., Jr., in Moyer, J. H., and Fuchs, M.: op. cit., p. 274. **9.** Maren, T. H., and Wiley, C. E.: J. Pharmacol. & Exper. Therap. *143*:230, 1964. **10.** Earley, L. E., and Orloff, J.: Ann. Rev. Med. *15*:149, 1964. **11.** Fuchs, M., and Mallin, S. R., in Moyer, J. H., and Fuchs, M.: op. cit., p. 276. **12.** Ford, R. V., in Moyer, J. H., and Fuchs, M.: op. cit., p. 290. **13.** cited in Fuchs, M., and Mallin, S. R. (ref. 11): op. cit., p. 283.



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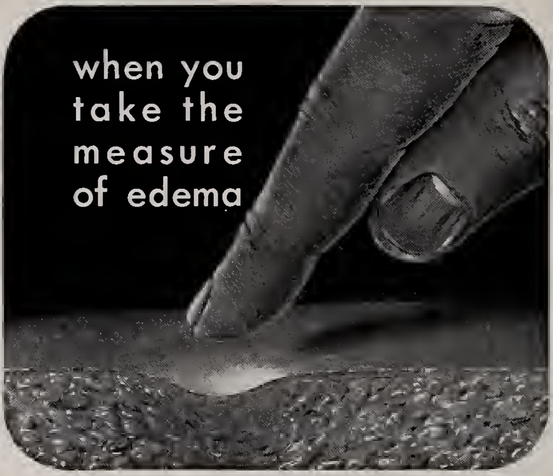

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In My Opinion . . .

The Lipstick Sign

Physicians rely on numerous observable phenomena as indicators of progress and recovery in their sick patients. The subsidence of fever, the slowing of a rapid pulse, and the return of appetite are, of course, a familiar few of the many signs which in the appropriate clinical setting portend improvement.

For some time I have been impressed with a less conventional prognostic sign occuring among hospitalized women which appears to be a clue of good omen. I call it "the lipstick sign," since it has to do with that almost universal practice among American women—the wearing of lipstick.

When a woman is ill, she usually stops applying makeup. As recovery ensues there comes a time when she again dons lipstick. This is the lipstick sign. While in many instances it occurs when there are already other signs of improvement, there are notable exceptions. The most remarkable of these occur when the lipstick is applied at a time prior to any other definite clinical indication of improvement and when the patient herself may still feel ill. It has been my experience in a few instances under such circumstances that the application of the lipstick heralded recovery at a time when on purely clinical grounds the issue appeared yet in doubt as to survival!

It appears to make no difference whether the patient applies the lipstick herself or has someone do it for her. The important thing seems to be her willingness to wear it. It is as if the patient had some deep inner awareness of the initiation of the recovery process, even before the physician is able to recognize it, and at a time when the patient herself may still be symptomatic, which somehow reflects itself in the patient's desire to wear lipstick.

The lipstick sign, occuring in such a setting, may in some cases be the earliest harbinger of recovery that the physician will be able to detect.

MARIO N. FABI, M.D.,
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P.R.N.

Legislation and judicial decisions often contain proposals relating either directly to Medicine or are sufficiently broad in scope to influence the Pennsylvania medical community. A knowledge of the actions, decisions and proposals of our state and federal governing bodies reveals a substantial number of decisions which affect any and all phases of medical practice.

From time to time, rather strange legal or legislative paradoxes come to the medical foreground. For example, the federal government periodically criticizes the profession for limiting the number of physicians in practice, thereby contributing to the so-called "doctor shortage." Yet the AMA-ERF Loan Program, from March, 1962 to December 31, 1965, loaned $31,856,138 to 25,511 potential future physicians. Taking the opposite tact, the federal government (HR-12453) is considering a $10 million program to train health personnel, including physicians, for health work in foreign countries. The program is designed not only to take more physicians out of direct service to patients, but to take them out of the country!

In another legislative area, the federal government wants passage of a bill (HR-8282), which, among other things, would require employers of one or more persons to participate in the Unemployment Compensation Program. Results, if passed: A physician paying each of two employees $5,000 per year would be taxed $455 per year.

Pending Senate Bill 2568 would prohibit dispensing pharmaceuticals, "devices" and "other products" by physicians at a profit. The bill's definition of profit is "any mark-up above the actual cost of the product" to the physician.

These few examples accent the significance of legislative and judicial decisions on medical practice today. PENNSYLVANIA MEDICINE plans to devote space in each future issue to these increasingly important items which potentially affect the doctor/patient relationship. "The Darling Case," featured on pages ten and eleven in this issue, is a sample of a significant activity in these fields which may possibly have a far-reaching effect on the Pennsylvania physician. F.G.M.

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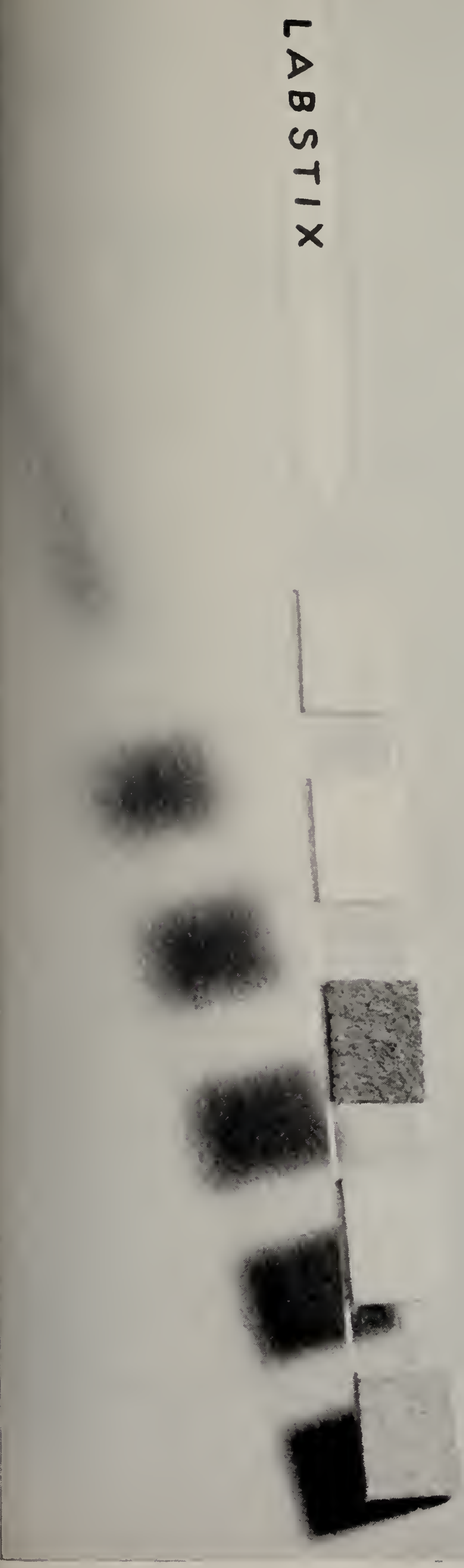

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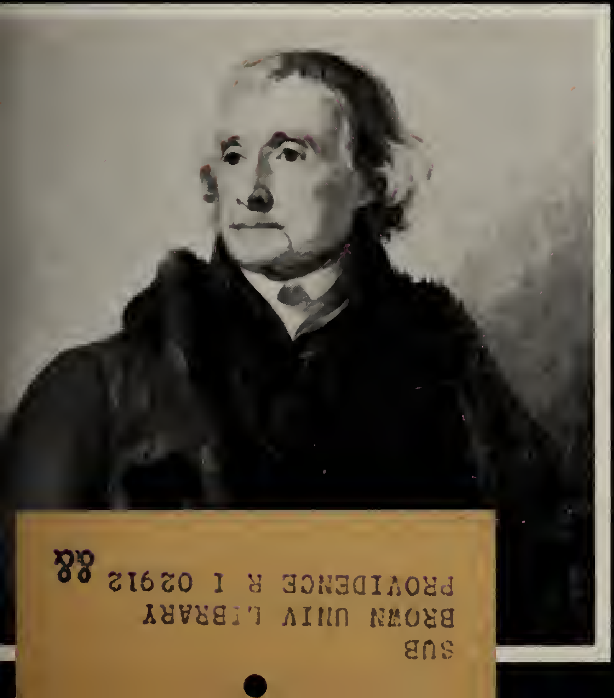

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A comprehensive evaluation of Diabetes Mellitus in Pennsylvania, including detection, diagnosis and treatment, is presented in a series of papers.
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HEALTH AND WELFARE AREAS OF CONCERN

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News
HIGHLIGHTS

October, 1966

- Connecticut is the fifteenth State to receive approval by the U.S. Department of Health, Education, and Welfare of the new Medical Assistance Program for low-income families authorized under Title XIX of the Social Security Act.

  The Connecticut program will provide hospital, physician, and other medical care for an estimated 280,000 men, women, and children in low-income groups, including those receiving Federal-State public assistance payments. The Federal Government will pay 50 percent of the cost. The Federal share for Connecticut is expected to run to about $16 million during the first year (Fiscal Year 1967) of operation.

  Fourteen other States, plus Puerto Rico, already have approved Title XIX operating plans. They are California, Hawaii, Idaho, Illinois, Louisiana, Maryland, Minnesota, Nebraska, North Dakota, Ohio, Oklahoma, Pennsylvania, Utah, and Washington. Another 15 States are expected to come into the program this year.

- George M. Leader, governor of Pennsylvania from 1955 to 1959, has been elected to the board of trustees of the Hahnemann Medical College and Hospital of Philadelphia, according to an announcement by Charles S. Cameron, M.D., president.

- An important briefing session will be held this Fall for all those concerned with computer use in hospital administration and patient care.

  The three-day session, ADVANCES IN COMPUTER-BASED HOSPITAL AND MEDICAL INFORMATION SYSTEM, will take place in New York City, December 6-8, at the Park-Sheraton Hotel. The session will include briefings by ten of the nation's most experienced authorities in the professional application of computers in the hospital and medical field.

  Sponsoring the seminar is Computer Usage Education, Inc. CUE specializes in the education of management and professional groups in advanced applications of computer technology.

  Additional detailed information can be obtained by writing to Mr. Ascher Opler, CUE, Inc., 51 Madison Avenue, New York, N. Y. 10010.

- At a meeting this week with the special advisory committee for relieving overcrowding at Pennhurst State School and Hospital, Spring City, Chester County, Secretary of Public Welfare Max Rosenn reported that proposed construction and renovation at State schools and hospitals and the construction of a new facility in Philadelphia will provide more than five thousand additional beds for the mentally retarded by 1971.

  Secretary Rosenn said the plans will provide for 374 more beds at Pennhurst and will further ease pressures on the institution by providing a 1,000 bed facility on a 75-acre tract east of Roosevelt Blvd., opposite the Philadelphia State Hospital. The Philadelphia project was earlier proposed as a 300-bed unit at Trevose, Bucks County.

  A 300-bed unit will be added to Pennhurst, and 74 more beds will be made available there by the conversion of two tuberculosis hospital wings into patient facilities.

Dr. Peter A. Herbut, has been named the new president of Jefferson Medical College and Medical Center. Announcement of the action by the trustees was made by James M. Large, chairman of the board.

Professor and head of the department of pathology and director of the clinical laboratories at Jefferson, Dr. Herbut succeeds William W. Bodine, Jr., who resigned earlier this year.

While Jefferson was founded by Dr. George McClellan, this appointment marks the first time in its 142-year history that a faculty member has been advanced to the presidency. This title was originally held by the presiding officer of the board until 1950 when the late Admiral James L. Kauffman, U.S.N., (ret.), became the first full-time president. The head of the board had assumed that title of chairman. Bodine succeeded Admiral Kauffman July 1, 1959.

- The Pennsylvania Medical Society recently cited three Pennsylvania companies for outstanding occupational health programs. Named were I.R.C., Inc., a Philadelphia electronics firm Vulcan Mold and Iron Company, Latrobe, manufacturer of ingot molds; and Bethlehem Steel Corporation.

These firms were named recipients of the Pennsylvania Medical Society's 1966 Occupational Health awards in three categories: for companies with over 500 employees (I.R.C., Inc.); for companies with under 500 employees (Vulcan Mold and Iron Company); and for company-wide programs of multi-plant firms (Bethlehem Steel).

Announcement of the awards was made by Mark R. Leadbetter, M.D., Chairman of the Commission on Occupational Health of the State Society.

The purpose of the Occupational Health Awards, given annually by the organization of 12,000 medical doctors, is to motivate companies in the state to establish or improve medical services for the employees.

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NEXT MONTH

JEFFERSON MEDICAL COLLEGE SPECIAL

ANNUAL ORATION

Controversy in Today's Medical Education

by George T. Harrell, M.D.

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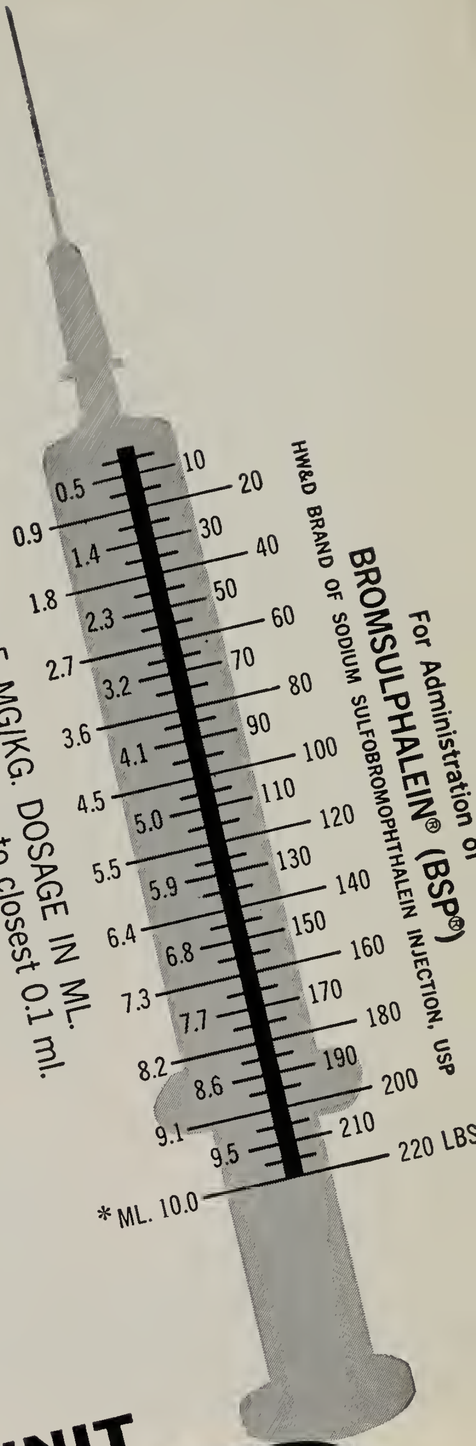

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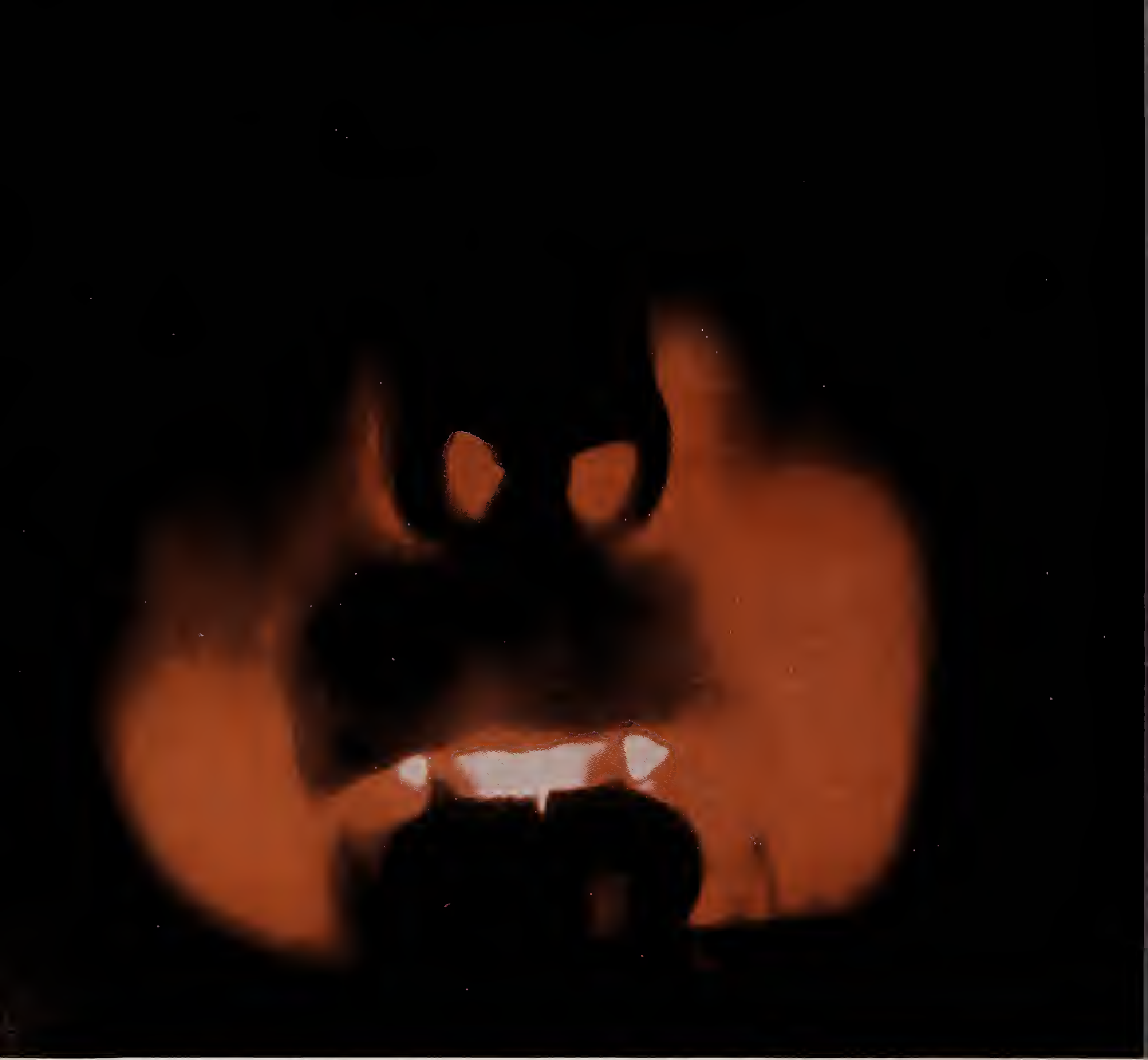

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OCTOBER, 1966 VOLUME 69 NUMBER 10

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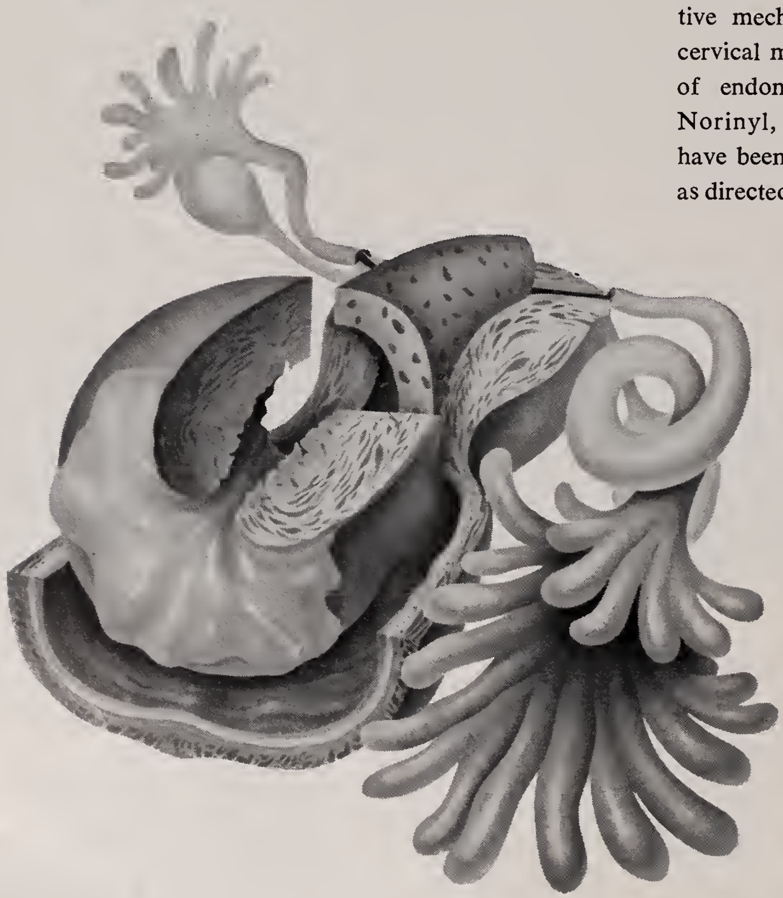

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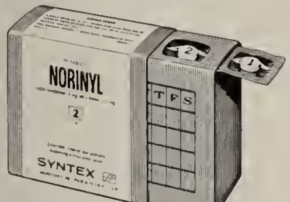

Contraindications: Thrombophlebitis or pulmonary embolism (current or past). Existing evidence does not support a causal relationship between use of Norinyl and development of thromboembolism. While a study which was conducted does not resolve definitively the possible etiologic relationship between progestational agents and intravascular clotting, it tends to confirm the findings of the Ad Hoc Advisory Committee appointed by the Food and Drug Administration to review this possibility. Cardiac, renal or hepatic dysfunction. Carcinoma of the breast or genital tract. Patients with a history of psychic depression should be carefully studied and the drug discontinued if depression recurs to marked degree. Patients with a history of cerebral vascular accident.

Warning: Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn.

Precautions: By May 1963, experience with norethindrone 2 mg.—mestranol 0.1 mg. had extended over 24 months. Through miscalculation, omission or error in taking the recommended dosage of Norinyl, pregnancy may result. If regular menses fail to appear and treatment schedule has not been adhered to, or if patient misses two menstrual periods, possibility of pregnancy should be resolved before resuming Norinyl. If pregnancy is established, Norinyl should be discontinued during period of gestation since virilization of the female fetus has been reported with oral use of progestational agents or estrogen. When lactation is desired, withhold Norinyl until nursing needs are established. Existing uterine fibroids may increase in size. In metabolic or endocrine disorders, careful clinical preevaluation is indicated. A few patients without evidence of hyperthyroidism had elevated serum protein-bound iodine levels, which in the light of present knowledge, does not necessarily imply hyperthyroidism. Protein-bound iodine increased following estrogen administration. Bromsulphalein retention has occurred in up to 25% of patients without evidence of hepatic dysfunction. Studies from 24-hour urine collections have shown an increase in aldosterone and 17-ketosteroids and decrease in 17-hydroxycorticoid levels. Thus, Norinyl should be discontinued prior to and during thyroid, liver or adrenal function tests. Because progestational agents may cause fluid retention, conditions such as epilepsy, migraine and asthma require careful observation. Thus far no deleterious effect on pituitary, ovarian or adrenal function has been noted; however, long-range possible effect on these and other organs must await more prolonged observation. Norinyl should be used with caution in patients with bone, renal or any disease involving calcium or phosphorus metabolism.

Side Effects: Intermenstrual bleeding; amenorrhea; symptoms resembling early pregnancy, such as nausea, breast engorgement or enlargement, chloasma and minor degree of fluid retention (if these should occur and patient has not strictly adhered to medication plan, she should be tested for pregnancy); weight gain; subjective complaints such as headache, dizziness, nervousness, irritability; in a few patients libido was increased. In a total of 3,090 patients, 2.2% discontinued medication because of nausea.

NOTE: See sections on contraindications and precautions for possible side effects on other organ systems.

Dosage and Administration: One Norinyl tablet orally for 20 days, commencing on day 5 through and including day 24 of the menstrual cycle. (Day 1 is the first day of menstrual bleeding.)

Availability: Dispensers of 20 and 60 tablets; bottles of 100.

References: 1. Council on Drugs. JAMA 187:664 (Feb. 29) 1964. **2.** Bryans, F. E.: Canad Med Ass J 92:287 (Feb. 6) 1965. **3.** Goldzieher, J. W.: Med Clin N Amer 48:529 (Mar.) 1964. **4.** Cohen, M. R.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965. **5.** Hammond, D. O.: Ibid. **6.** Rice-Wray, E., Goldzieher, J. W., and Aranda-Rosell, A.: Fertil Steril 14:402 (Jul.-Aug.) 1963. **7.** Goldzieher, J. W., Moses, L. E., and Ellis, L. T.: JAMA 180:359 (May 5) 1962. **8.** Kempers, R. D.: GP 29:88 (Jan.) 1964. **9.** Tyler, E. T.: JAMA 187:562 (Feb. 22) 1964. **10.** Rudel, H. W., Martinez-Manautou, J., and Maqueo-Topete, M.: Fertil Steril 16:158 (Mar.-Apr.) 1965. **11.** Flowers, C. E., Jr.: N Carolina Med J 25:139 (Apr.) 1964. **12.** Goldzieher, J. W.: Appl Ther 6:503 (June) 1964. **13.** The Control of Fertility. Report adopted by the Committee on Human Reproduction of the American Medical Association. JAMA 194:462 (Oct. 25) 1965. **14.** Flowers, C. E., Jr.: JAMA 188:1115 (June 29) 1964. **15.** Merritt, R. I.: Appl Ther 6:427 (May) 1964. **16.** Newland, D. O.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965.

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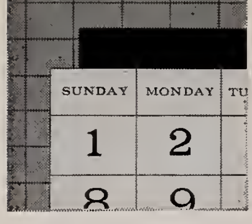

THIS MONTH

Title XIX and Congress

The House Ways and Means Committee, meeting regularly in closed-door sessions, is attempting to report out a bill that will cut down on federal assistance to states under medicare's Title XIX. Currently, Title XIX encourages states to liberalize and expand medical assistance to low income families, and virtually all persons on welfare rolls qualify for this help as soon as their state plans are approved. In addition, states may include families and individuals if their incomes are below a point that by state definition makes them "medically indigent."

Money from Washington is apportioned on a per-capita income basis under Title XIX, with the poorest states entitled to up to 80 percent of the cost of their programs, and the highest income states up to 50 percent.

Congress became acutely aware of a severe problem when New York first presented its proposed program. In New York, a family of four would qualify for free medical care if its income did not exceed $119.00 per week; the family could have a savings account of up to $3,000 that could not be touched for medical bills. One estimate is that New York's plan would cost the U. S. close to $1 billion the first year—many times the most pessismistic estimate for the whole country when Title XIX and medicare were passed last year. Even without New York, total cost for the fourteen states and Puerto Rico, which have qualified since Title XIX became effective last January 1st, would be almost $½ billion dollars the first year.

Three possibilities offered to reduce the federal spending for Title XIX: (1) Reduce the minimum federal contribution from the present 50 percent to around 30 percent; (2) establish regulations which would set income level at which individuals and families could qualify (Under present law states alone are authorized to set the income level. A current suggestion is a figure between $2,000 and $3,000 per year. This contrasts with the New York proposal of just over $6,000); (3) Consideration of a definite ceiling on federal contributions per year (establishment of maximum contributions by the government would then force HEW's administrators to devise a workable plan for allocation of available money).

The Senate Finance Committee, under chairmanship of Senator Russell Long, also is studying the Title XIX problem. Regardless of the method finally adopted for cutting back the total federal contribution, great pressure will naturally be upon the states to reduce all spending under the program.

Social Security and the Doctor

HR 14408, a bill before Congress, introduced by Representative Theodore Kupferman of New York, would remove all limits from the income amount a senior citizen could earn without forfeiting any Social Security benefits.

As the law now stands, anyone sixty-five years of age or older up to the age of seventy-two, can earn up to $1,500 per year without being penalized by deductions for Social Security checks. When earnings exceed this $1,500 limit, one dollar is deducted for every two dollars of private earnings up to $2,700 per year. After this $2,700 plateau is reached, one dollar is deducted for every dollar earned, which, in effect, halts Social Security payments completely. Those reaching the age of seventy-two have no limit on the earnings they can make in employment and still receive full Social Security benefits.

Another quirk within the law permits any oldster who has income from rents, investment, or interest, to draw full Social Security benefits without penalty.

As the law now stands, any physician who wishes to continue his practice beyond age sixty-five, will not be eligible for Social Security benefits until reaching the age of seventy-two, regardless of how many years contributions have been paid into fund. In short, for the working doctor, Social Security is not available until age seventy-two, although full Social Security deductions will be maintained from income for seven years after age sixty-five.

■ The Advisory Committee on Obstetrics and Gynecology to the Food and Drug Administration reported that in a nine-month study it could find "no adequate scientific data" that birth control pills are "unsafe for human use."

But the committee said that there are "possible theoretic risks" in the use of oral contraceptives. For this reason, the committee recommended further extensive tests to learn more about possible side-effects and to improve surveillance of the drugs.

The FDA accepted this proposal and other committee recommendations, including discontinuance of time limitations on use of oral contraceptives. FDA Commissioner Dr. James Goddard said the agency would like to start studies on up to 50,000 women next year and eventually on as many as 500,000 women. The biggest drug studies thus far have involved only 20,000 or 30,000 women.

"The committee finds no adequate scientific data, at this time, proving these compounds unsafe for human use. It has nevertheless taken full cognizance of certain very infrequent but serious side-effects and of possible theoretic risks suggested by animal experimental data and by some of the metabolic changes in human beings," the committee concluded.

"In the final analysis, each physician must evaluate the advantages and the risks of this method of contraception in comparison with other available methods or with no contraception at all. He can do this wisely only when there is presented to him dispassionate scientific knowledge of the available data."

■ The American Medical Association opposed legislation that would make prescribing drugs by generic name mandatory under the federal program of medical care for dependents of military personnel.

The AMA expressed its opposition in a letter to a joint House-Senate committee that was considering such legislation. The letter said:

"The generic name refers to the active chemical ingredient of the drug and not to the finished product which is supplied to the patient. In order that it may be dispensed, the trade name manufacturer, by way of a specific formulation, processes the drug to its final form. For example, included in a manufacturer's preparation of a tablet form of a drug may be a number of variables such as the crystalline size, the nature of the excipients, the coloring agents and flavors, the tableting pressures, coating films, and the orientation within the tablet.

"Since the finished product, depending on who has manufactured it, may emerge in any one of several forms, it becomes apparent that a generic-named drug supplied by one manufacturer may differ to a significant degree from the same generic-named drug supplied by another manufacturer. Yet, if the physician is compelled to prescribe by generic-name, he would have no control as to which drug is used by the pharmacist in filling the prescription.

"The coating, the disintegration time, the solubility, the choice of vehicle or base, these and other factors may be extremely important to the physician who chooses a drug for his patient. He must have the opportunity to specify that drug containing the variables he has found suitable to the treatment of his patient. Further, where his patient is receiving the same medication over a period of time, successive refills of the same prescription with products of different manufacturers could lead to variations in therapeutic response which may mislead him.

"It has been suggested that generic prescribing would result in substantial savings. This may be true in some instances, but certainly not in all. Generic prescribing would allow the pharmacist to furnish the patient with that manufactured drug he, the pharmacist, has chosen. It may or may not be less expensive. In any event, it is the pharmacist who sets the final price.

"The argument of generic prescribing versus trade name prescribing has been heard at scientific gatherings, seen in scientific publications, and debated in the committees of Congress. But as to one element of the discussion, almost all physicians agree. For a variety of sound medical reasons, the choice of whether to prescribe generically or by brand name should be that of the treating physician. No law should be passed which may compel him to use in every case, a generic or non-proprietary drug. Such a law would not be in the best interest of his patient."

General Status for Army Medical Corps

On September 13, a bill was sent by the Senate to President Johnson authorizing one officer of the Army Medical Corps to hold the rank of brigadier general. Prior to this time, the highest officer has been a colonel. Also approved and sent to the White House was a bill to authorize the commissioning of males in the Army and Navy Nurse and Medical Specialists Corps.

Twenty-six additional colonels, and eighty-six additional lieutenant colonels will be elevated in the Air Force under another measure passed and sent back to the House.

Computer System 'Hospitalized'

Eight hospitals in the Minneapolis-St. Paul area are participants in what is believed to be the first cooperative program allowing hospitals to share common computer facilities. Designed to improve patient service and hospital administration, the co-op computer arrangement could eventually serve most of Minnesota's 180 hospitals.

Goal of the system is to develop a statewide information network connected to a central computer complex. Such an arrangement could provide a wide range of accounting, administrative and hospital management services for less cost than if each hospital had its own computer. The first task given the computer sharing program is patient accounting. Inventory control and purchasing of more than 2,500 kinds of hospital supplies and non-perishable foods will be its next chore.

New Drugs: 1966 Edition

The first edition of **New Drugs** was published in July, 1965. Over 30,000 copies were sold within the first six months and the AMA had to order two extra printings. The second (1966) edition has been enlarged and improved by the addition of five new chapters and thirty new drug monographs. Many of the individual drug evaluations have been revised, as have some of the general discussions which review the older drugs at the beginning of each chapter.

New Drugs contains individual monographs on 290 single-entity products that have been marketed in the U.S. within the last ten years. Each monograph gives information on the drug's actions and uses; adverse reactions; contraindications or precautions; dosage and routes of administration; preparations and their available sizes and strengths. These brief and clearly written statements provide the practicing physician with an independent and unbiased assessment of the more recently introduced drugs. The evaluations, which are based on a study of all the laboratory and clinical research data by the AMA's Council on Drugs and its consultants, will be of great assistance to the physician in the day to day conduct of his practice. Since a monograph on a drug is included whether or not the Council's opinion is favorable, *New Drugs* is in no sense a list of approved or accepted drugs. Drugs are indexed by their nonproprietary (generic) and trade names; Canadian trade name equivalents are also given.

Perilous Arthritis Drug

Pennsylvania Secretary of Health Charles L. Wilbar, Jr., M.D., recently released the following statement:

It has been called to our attention that in some southern states dipyrone, labeled "dimethyl pyrazalone sulfanilamide," is being imported from Mexico and used in the treatment of various types of arthritis. We are told that at least four treated persons have died; two reported from agranulocytosis, a major adverse reaction to dipyrone.

In 1964 the Federal Food and Drug Administration required additional directions and warnings in the labeling for aminopyrine, dipyrone, and their derivatives, principally to the effect that they may cause agranulocytosis. Any use of this drug must be weighted against this possibility. It has been stated further that dipyrone should be restricted to use for its antipyretic effect in life-threatening situations where salicylates or similar drugs are ineffective or contraindicated.

As persons with arthritis may go to extremes in their attempts to find medication to mitigate the pain, you may be requested to prescribe an aminopyrine derivative based on evidence that it is of value in treating arthritis. Although these drugs may not be used legally except under professional supervision, some dosage forms are still available without these necessary restrictions.

Occupational Disease Act Change Under Way

JAN LIEBEN, M.D., Director
Division of Occupational Health
Pennsylvania Department of Health

In December, 1965, the Pennsylvania Legislature corrected one of the great injustices of our century and eliminated the so-called statute of limitations for pneumoconiosis. An uncompensated silicosis victim who worked in Pennsylvania mines for two years and is now suffering from pneumoconiosis may now apply. Following passage of this law, the Department of Labor and Industry (the administrative agency charged with the administration of the Occupational Disease Act) received nearly eighteen thousand new applications from coal miners claiming disability from pneumoconiosis.

On February 22, 1966, the Pennsylvania Department of Health was charged with the evaluation of these claimants. Since many had been waiting for this law for many years, it was essential that an examination procedure be implemented as expediently as possible. By following previously-existing procedures, the evaluation would have taken up to three years. Because of this, a screening procedure was established by the Department of Health. First, the Department advised all applicants to visit a board certified or board eligible radiologist. Board certified radiologists were selected from the listing of the board certified specialists published annually by the **Marquis—Who's Who** for the Advisory Board for Medical Specialties, Inc. Board eligible specialists had to submit proof of their eligibility. This examination program started operation the second week of March 1966, only two weeks after the Health Department was charged with this responsibility.

Although X-ray cannot normally be used as proof of disability, it was accepted that disability exists when one-third of the lung was shown to have been replaced by fibrous tissue (International Classification of Pneumoconiosis, ILO 3-C). Approximately 6 percent of the claimants were judged disabled under this part of the program.

Stage 2 of the evaluation procedure consisted of the administration, by the Pennsylvania Tuberculosis Society, of the vital capacity tests—forced expiratory volume. Based on the results of these tests and the X-rays previously taken, an additional group of men was judged as being disabled. The specific number of disabilities found cannot be stated at this time.

All claimants who are not certified on the basis of their X-ray and forced expiratory volume test will undergo an evaluation by a board certified or board eligible internist or chest physician specializing in pulmonary diseases. These examinations to determine disability are now in progress. In doubtful cases, lung function tests will be administered by the laboratories of the various Pennsylvania medical centers.

Home Health Services Project

Home health care agency expansion or the creation of new Home Health Service agencies is taking place in six counties of Pennsylvania as a result of action by The Pennsylvania Health Council under a contract with the Pennsylvania Department of Health entitled "Home Health Services" Contract Number 66-523-1.

Under the terms of the contract, The Pennsylvania Health Council has undertaken a project to stimulate community action for Home Care Agency expansion as well as the creation of new Home Health Service Agencies. Assistance to existing Home Health Service Agencies is also a function of this project.

The Medicare Program makes 1,729,000 Commonwealth residents over 65 eligible for up to two hundred home care visits and in thirty counties there is no agency to supply them. In eighteen other counties there is only partial coverage by Home Health Service agencies. Therefore, the need for this project is great.

The members of an advisory committee of Pennsylvania Health Council, Inc., approved a program in Blair County to test methodology for establishing a county-wide home nursing service. Blair County was selected because it is essentially a rural county, and most of the counties without Home Health Service agencies are rural. As a result of several group meetings sponsored by The Pennsylvania Health Council, Inc., and many individual interviews by Don Edsall, Project Coordinator, a county-wide home nursing service has been organized.

The program in Blair County demonstrates that in cases where an agency comprises a single nurse and a relatively unimaginative board, the creation of a new agency is more effective than attempting to induce the small visiting nurse agency to expand. Small group meetings of five or six interested citizens are effective in obtaining impetus for organizing home health services.

These techniques are now being applied in Northumberland, Columbia, Montour and Indiana Counties where new agencies are in various stages of formation.

To become certified for reimbursement under the Medicare Program, a Home Health Service agency must supply at least one of the following services in addition to nursing care: (1) physical therapy (2) occupational therapy (3) speech therapy (4) medical social work, or (5) home health aides.

A survey of Home Health Service agencies in the state showed personnel to be their greatest need, and physical therapy the most desired additional service.

As a step toward filling this need, The Pennsylvania Health Council project identified 270 physical therapists and thirty-eight medical social workers who would be interested in working with visiting nurse associations on a part-time basis. Occupational therapists and speech therapists and additional medical social workers will be identified for all visiting nurse associations in the state. Those agencies desiring to supply home health aide services are being supplied with the names of students who withdraw from licensed practical nursing schools in their areas as potential candidates.

A survey of professional nursing schools and licensed practical nursing schools developed much interesting data on number of graduates and where these graduates go when they leave school.

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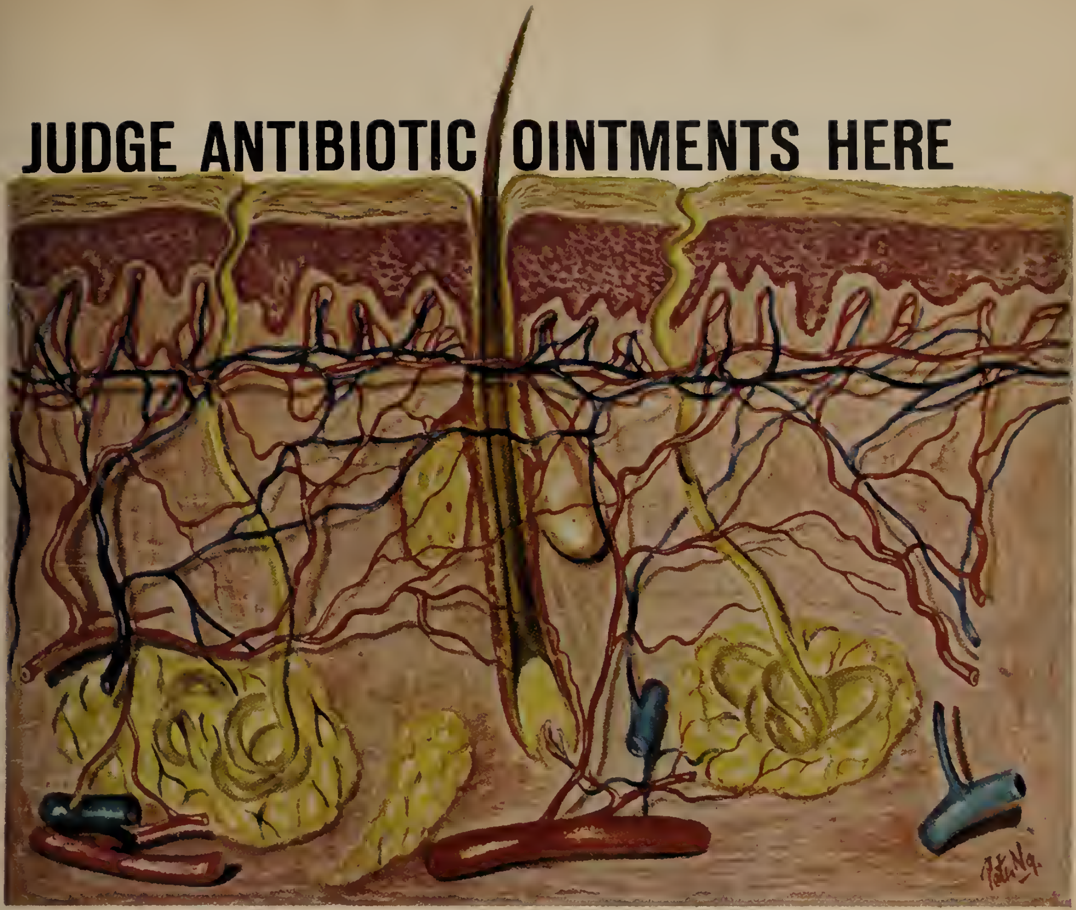

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Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of non-susceptible organisms and/or fungi. Appropriate measures should be taken if this occurs.

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Contraindication: Not recommended during pregnancy.

Caution: May be habit-forming. Do not use in patients sensitive to barbiturates or in those with moderate to severe hepatic disease.

Side Effects: Nausea, transitory dizziness, rash. Overdosage of allobarbital produces symptoms typical of acute barbiturate excess.

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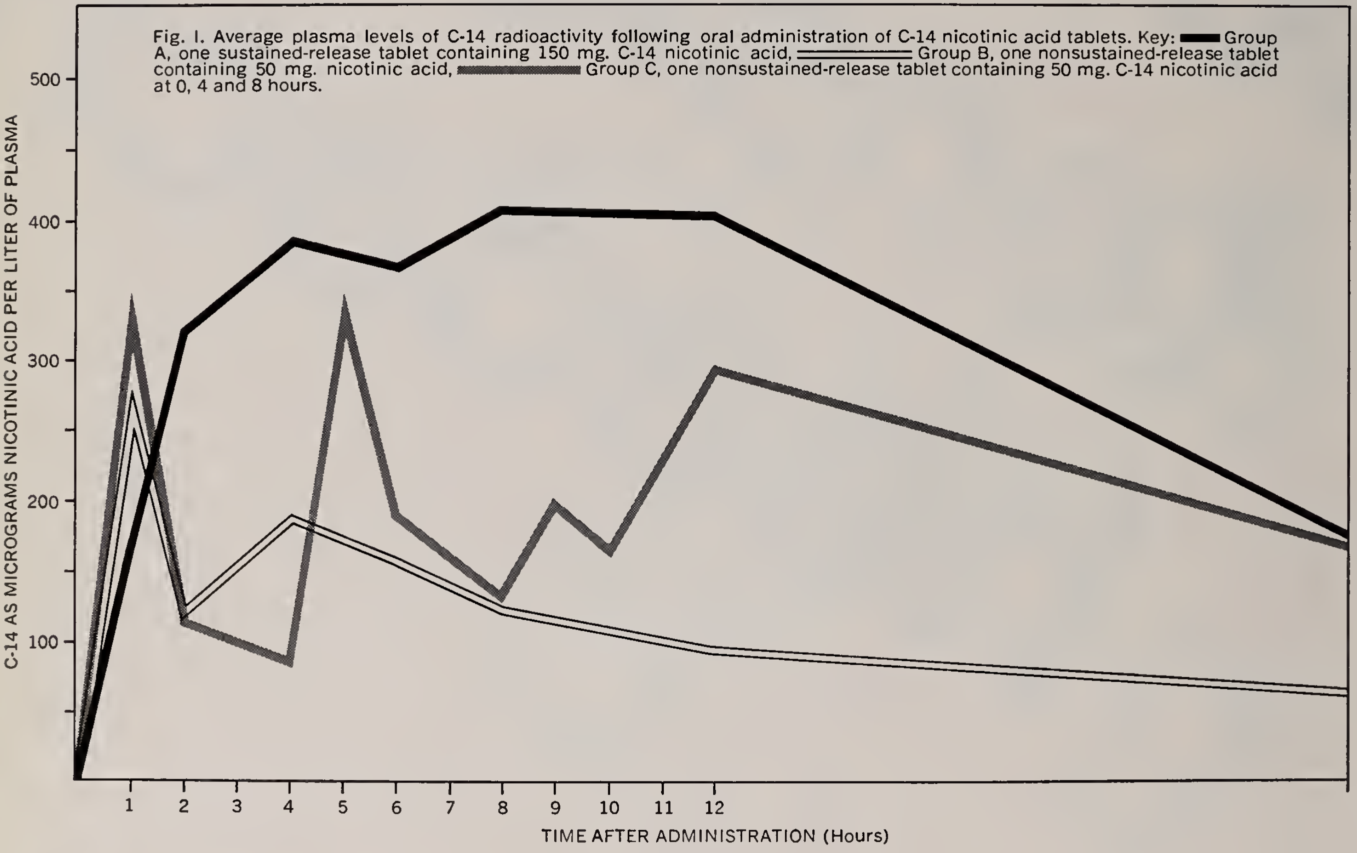

Fig. I. Average plasma levels of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═ Group B, one nonsustained-release tablet containing 50 mg. nicotinic acid, ▨ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

(fewer absent doses by absent-minded patients)

Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated

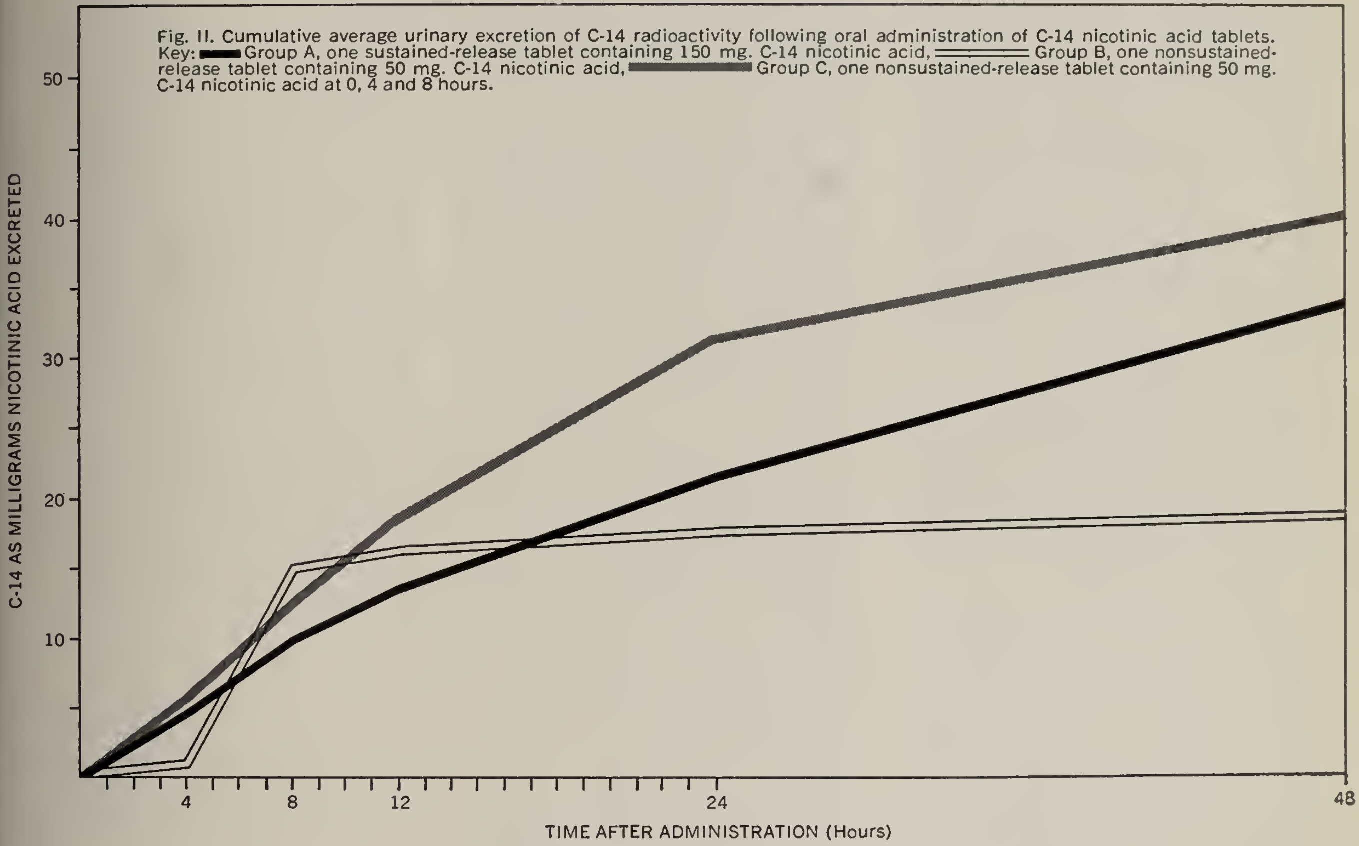
Fig. II. Cumulative average urinary excretion of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ━ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═ Group B, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid, ▬ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

C-14 AS MILLIGRAMS NICOTINIC ACID EXCRETED
50
40
30
20
10
4
8
12
24
48
TIME AFTER ADMINISTRATION (Hours)

less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

"First with the Retro-Steroids"
PHILIPS ROXANE LABORATORIES
Division of Philips Roxane, Inc., Columbus, Ohio
A Subsidiary of Philips Electronics and
Pharmaceutical Industries Corp.

Geroniazol® TT

nicotinic acid 150 mg., pentylenetetrazol 300 mg.
Tempotrol® Time Controlled Tablet

The Mental Health – Mental Retardation Act of 1966

The proposed new mental health law is the result of major recommendations from a two-year planning program in Pennsylvania participated in by over three thousand lay and professional volunteers interested in mental health and mental retardation, and is sponsored by the Commonwealth's Council on Human Services.

The more than 25,000 citizens active in the forty-five mental health associations throughout Pennsylvania are deeply interested in this significant bill. Pennsylvania Mental Health, Inc. has endorsed the legislation, along with the Pennsylvania AFL-CIO, Pennsylvania Association for Retarded Children, Pennsylvania Psychiatric Society, Pennsylvania Medical Society, and some dozen other major professional and citizen organizations in Pennsylvania.

We are particularly concerned at this time that amendments to the bill not hamper the provisions for a balance of responsibility among county commissioners, the local Mental Health-Mental Retardation Board, the County Administrator, and the State Department of Public Welfare.

Also, if competent professional persons are to be found for the position of County Administrator, they *must* have the benefits of tenure, and not be subject to breaks in continuity of political leadership in county government.

On one further matter, question has been raised about the mandatory nature of the legislation. I'm sure we need only to point to the experience in Pennsylvania of efforts to develop county departments of health in order to make clear our great concern that the increased county responsibility in mental health and mental retardation be required and not simply permitted by the new law.

The major purpose of the Mental Health-Mental Retardation Act of 1966 is to give a legal framework for the development of comprehensive community mental health and mental retardation services throughout the Commonwealth.

To accomplish this the bill in essence:

Would mandate the counties to see to it that local comprehensive mental health and mental retardation services would be provided.

Would create local citizen boards as the formal and legal mechanism through which community leadership and participation would be involved in the development of the community program.

Would provide for the local citizen boards and county authorities to have professionally-qualified administrators.

Would place new and much-needed emphasis on voluntary admission to mental health facilities, while at the same time protecting the rights of patients when involuntary admission is necessary.

Would provide for a system of multiple-source financing for the program.

Specifically, the bill would place responsibility on the counties to make available to all residents at least the following mental health and mental retardation services:

Short-term inpatient services other than in State-operated facilities;

Outpatient services;

Partial hospitalization services;

Twenty-four hour emergency services:

Consultation and education services to professional personnel and community agencies;

Aftercare services;

Specialized rehabilitative and training services, including sheltered workshops;

Interim care for mentally retarded, between acceptance and admission to a State-operated facility.

Unified information and referral services.

To make this possible:

Each county (singly or in combination) would appoint a thirteen-member Mental Health-Mental Retardation Board, representative of interested groups and professions.

The Board would make nominations and the county commissioners would appoint a professional mental health-mental retardation administrator.

Board and administrator would develop annual plans for the mental health-mental retardation program, and recommend same to the county authorities.

The community mental health and mental retardation services could be purchased from existing agencies or provided by direct county operations.

The Department of Public Welfare would be responsible for equitable distribution of adequate services, for maintenance of standards, and for operation of State facilities.

The bill makes new provision for purely voluntary admission to mental health facilities.

Commitment of mentally-disabled persons would be provided for, as in the Mental Health Act of 1951.

Commitment also could be made to outpatient services or partial hospitalization, as well as to inpatient care.

Such commitments would be reviewed at least once a year, should patients remain that long in a facility.

While patients would be responsible for the cost of treatment to the extent of their financial ability, liability of patients or responsible relatives would be determined ultimately by the Secretary of Public Welfare, who would be authorized to exercise considerable flexibility for lenient interpretation of liability.

Where possible, the home of the patient or legally-responsible relative would not be considered in determining liable assets.

Each county would be required to submit a plan to the Department of Public Welfare for the establishment of a Community Mental Health-Mental Retardation Program by January 1, 1968. The county would have until July 1, 1968 to gain approval for the plan.

Between 70% and 90% of the residual cost of community mental health-mental retardation services (costs in excess of those paid by individuals, and other public and private sources) would be paid by the Commonwealth.

The Commonwealth would continue to operate State facilities and to reimburse costs of interim care for mentally retarded persons awaiting placement in State facilities.

A significant part of the residual costs of community-based inpatient and partial hospitalization care would also be assumed by the Commonwealth.

For the first three years of operation, the State could supplement the regular State grants for a county by as much as 10% of that grant. Until a county plan is approved, the Department of Public Welfare could make interim grants to counties or facilities for part or all the cost of services.

The effective date of the Act, if passed, will be January 1, 1967.

Frederic D. Justin
President
Pennsylvania Mental Health, Inc.

Trained Hospital Personnel Shortage

PASCAL F. LUCCHESI, M.D.

Philadelphia, Pennsylvania

Dr. Lucchesi is Executive Vice President and Medical Director of the Albert Einstein Medical Center, Philadelphia, Pennsylvania. This article is based on the text of a speech delivered to the Einstein Medical Center Board of Trustees' Executive Committee on August 1, 1966.

I would like to speak to you briefly tonight about a most serious situation. This situation is not peculiar to the Albert Einstein Medical Center alone. In fact, it threatens the efficient operation of almost every hospital in the United States as well as ours, as you know only too well. This executive committee and our Board of Trustees have fallen heir to this problem—have struggled with it. My object is to put it into perspective.

I'm speaking of the shortage of trained hospital personnel—particularly nurses. This shortage is chronic, mounting and potentially devastating to good patient care. The statistics are much too familiar: the Medical Center needs more than one hundred registered nurses immediately in order to operate at full capacity; in our Delaware Valley area, there is an announced immediate need for two thousand additional nurses; nationally, fifty-five thousand nurses are needed at once; and within the next four years, it is predicted that two hundred thirty thousand additional nurses will be required by United States hospitals.

At this point, it has become obvious to me that we are never going to see those additional nurses unless we make a drastic revision in our present thinking—and make it soon.

Aside from the administrative and patient-care complications caused by the nursing shortage, there are also some rather serious moral overtones. Can hospitals morally accept trusting patients when the officials know those patients will receive only minimum nursing care? When we know that two hospital floors may be staffed all night by one R.N.? When we know that the nurses on duty are tired, and have every right to be, because they have already worked a full eight-hour shift and must continue for another four hours or so because there is noone available to relieve them?

I, for one, cannot accept patients with a clear conscience under these conditions. I challenge you to show me one hospital in this area tonight where these conditions do not exist. In fact, in some local hospitals, I suspect, conditions are worse than I describe.

In allowing the nurse shortage to continue—and really, that is exactly what the American hospital system is doing—we are establishing ourselves as the arbitrators of another moral question. Over the past sixty years, medical science has achieved the ability to offer treatments and cures undreamed of even a century ago. I venture to say that the majority of us here tonight would not be alive today except for these miracles. Innoculations against childhood diseases; new surgical procedures; advances in public health; antibiotics—all new within our lifetime.

"Miracles," they are called. And more miracles are expected to pour from our accelerating medical science. And unlike the portents and charms of medieval times, these miracles are not the sole property of the kings or cardinals. We've had a sweeping alteration of our thinking on those lines during this century. Recent legislation such as medicare is positive proof of today's moral belief that the advantages of medical science are the unquestioned property of all persons who need them.

But by perpetuating a needless shortage of medical personnel, we are very possibly making the moral decision to adulterate the doses in which medical science is administered. Because (I don't care what the level of your medical science is) if you don't have the trained personnel available to administer these miracle cures to the sick, you are no better off than you were one hundred years ago when those cures did not exist. We have no moral right to give any patient less than the full benefits of medical science.

How did we get into this predicament, this situation, where the shortage of nurses has been *so* chronic for *so* long that not having enough nurses is considered a normal situation hardly worthy of comment?

I will tell you how. While our medical science has taken fantastic strides forward over the last sixty years, I'm afraid our *thinking* has progressed very little.

Recently I read an article by our director of nursing, Miss Ella W. Allison, a fine woman of great professional standing and experience. Let me read a brief portion of her article to you. She wrote about her student days in 1936 and she said:

"There were 110 students in our class, and when we were graduated, there were positions for very few of us in my section—three to be exact. "Those of us fortunate enough to get positions received $60 a month plus maintenance, which we considered quite good. At some other hospitals, they were offering maintenance only—no salary."

That was in 1936. And our problem thirty years later is caused, I believe, by our refusal to change our thinking since those depression days.

In short, and quite obviously, we have not paid sufficient salaries to attract enough qualified people to work for us. We have not paid sufficiently to interest enough young people in training for our careers. We offer instead such items as psychic income, fulfillment, and professional pride. These are high sounding benefits, and important ones, but they must be coupled with material benefits.

In today's understaffed hospitals and medical centers, a twenty-five year old nurse begins to find very little professional pride in being the only Registered Nurse on duty for two floors, responsible for doing the work (or trying to do it) usually assigned to several registered nurses with aides. Strangely enough, our young ladies still have their dreams of professional pride and fulfillment, but under the conditions we offer them, they become discouraged.

They quit nursing, and I can hardly blame them. During the Crimean War, Florence Nightingale and her thirty-eight nurses at Scutari cared for two thousand patients in four miles of wards. But I thought things had changed since then.

Gentlemen's Agreement

In a way there's been a kind of gentlemen's agreement among the hospital-medical-nursing establishment of this country not to make waves; not to rock the boat. Vigorous recruiting by individual hospitals is discouraged because if you hire a nurse through a recruitment drive, you probably will have pirated her away from

Hospital Personnel Shortage

another institution. And that wouldn't be nice. Hospitals in each region have carefully avoided entering nursing salary wars. Associations, leagues, councils and the like have kept careful tab on everything, making sure all was ethical. Ethical we have been: so ethical, in fact, we now find ourselves in a serious jam.

And it is high time to blast our way out of this jam. This year, not next. This month. Maybe even this week!

As God has seen fit, we live in a free society where you don't assign people to jobs. You don't assign students to certain courses of study. You don't say: "We're getting a little short of nurses, so let's ask Washington to assign fifty thousand girls to nursing school next year." No! In this society, those girls go to that nursing school of their own free will. Or they go to secretarial school, or social work school. They pay for their course of study. They are graduated, and they take jobs wherever they darn well please. That is how our American system works.

But the hospital system does not seem to be aware of this. We offer underpaid jobs with difficult professional circumstances. As the public requires more and more from the American hospital system, most hospitals can provide only a skeleton nursing staff. The danger signs have appeared. These signs are indicative of salaries too low to keep the hospitals properly staffed.

We run "come-and-see" tours and "career days" for high school students. They come, they see, they find out about our careers. Then they go take an office job somewhere because it is obvious to them we aren't offering very much.

The long-term cure for our problem is to bring hospital salaries on a par with the industrial salaries paid for equal training and experience. While we expect and get an honest day's work, we also should pay for it adequately, both in psychic income and in cash.

I say that somewhere in our vast American hospital system someone must care enough to take the lead. Somewhere in each local area such as our Delaware Valley, some hospital must care enough to take the lead. We must offer better salaries to all employees. We must do this generously, and we must do it now. If one concerned institution takes the lead, the others will follow. They'll be required to by the vacuums and pressures of our economic system.

When salaries go up, I think eventually we will find that nursing school enrollment also will improve. I think we will find more nurses willing to come out of married retirement. And most importantly, I think we will find better patient care in our hospitals.

This, gentlemen, is a challenge. The next move is your's.

Mental Health

Pennsylvania Mental Health, Inc., the statewide citizens' mental health organization, threw its support behind the "Mental Health/Mental Retardation Act of 1966," submitted to the Legislature. Companion measures were introduced in the House and Senate under bipartisan sponsorship.

Mr. Frederic D. Justin, Association president, called on the members of the General Assembly to enact the new legislation in a statement released today. Copy of statement follows:

"To the Members of the Pennsylvania General Assembly:

The Commonwealth's Mental Health and Mental Retardation Program has failed to keep pace with the urgent needs of 100,000 mentally disabled Pennsylvanians and their families. The Legislature has before it an opportunity to take a major step to rectify the situation. We strongly urge your support for the Bill entitled 'The Mental Health/Mental Retardation Act of 1966.'

"This Bill provides for five major changes in the Mental Health/Mental Retardation program of the Commonwealth, placing much-needed emphasis on the development of local services for the mentally ill and mentally retarded:

1. It mandates the counties to see to it that local comprehensive mental health and mental retardation services are provided.
2. It creates local citizen boards as the formal and legal mechanism through which community leadership and participation are involved in the development of the community program.
3. It provides the local citizen boards and county authorities with professionally qualified administrators.
4. It places new and much-needed emphasis on voluntary admission to mental health facilities, while at the same time protecting the rights of patients when involuntary admission is necessary.
5. It provides for a system of multiple-source financing for the program.

"The proposed legislation, in short, will establish a legal framework for a modern approach to prevention, treatment and rehabilitation of the mentally disabled. Twenty-eight states have already passed similar legislation. This legal framework is required to capitalize on the efforts of the federal government to assist states and local communities by providing funds to aid in the construction and operation of community mental health centers.

"The proposed legislation, one major result of a two-year study conducted by the Commonwealth to design a comprehensive long-range mental health program, is needed to put its recommendations into effect.

"This study took over two years to complete with a grant of approximately $400,000 from the federal government, supplemented by the even more extensive free time devoted by volunteer professional and lay leaders in all parts of the state.

"The study established a new major direction: the mentally ill and mentally retarded should, can and will be treated as close to home as possible and these services will become part of the mainstream of local medical and social services.

"The proposed Mental Health/Mental Retardation Act of 1966 is the first step—and the most urgent one to guarantee that these objectives will be accomplished."

This item appeared in *Philadelphia Medicine,* **62:** 17, 1966.

Reprinted Articles

It is not the policy of PENNSYLVANIA MEDICINE to reprint articles which have appeared previously in other publications.

An item appeared in the March 28, 1966, Volume 195 issue of JAMA which could merit more than fleeting consideration. **"Medical Etiquette,"** by Robert M. Tenery, M.D., has been called to our attention by several Pennsylvania physicians.

Postgraduate Courses

ALLENTOWN

At Allentown Hospital, 10 A.M.–1 P.M. on dates specified; each 3 hours AAGP:

Pathology Seminars, Temple University department of pathology, and Lehigh AAGP, at Allentown Hospital, Mondays, September–June, 7:30 P.M.; 20 hours AAGP. Contact Allentown Hospital Association, Seventeenth and Chew Streets (18102).

Biliary Colic,* November 10.

Edema as a Symptom,* December 8.

BETHLEHEM

At St. Luke's Hospital, 8:30 A.M.–12 M. on dates specified; fee, each course, $7.00; AAGP credit, each course, 3 hours:*

Fluid and Electrolytes: (1) **Disorder of Acid-Base Equilibrium,** September 15; (2) **Discussion of Body-Fluid Volume, Basic Considerations and Definitions,** October 20; (3) **Fluid and Electrolytes Disorders in the Surgical Patient,** November 17; (4) **Review of Fluid and Volume Problems and Acid-Base Disorders,** December 15.

CHAMPION

Continuing Medical Education Seminar,* in cooperation with Conemaugh Valley Memorial Hospital, Johnstown; at Seven Springs Mountain Resort, November 10–12; fee, $8.00; 16 hours AAGP.

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* These courses sponsored by Jefferson Medical College and The Pennsylvania State University. For further course information, contact J. H. Killough, M.D., 1025 Walnut Street, Philadelphia 19107.

DREXEL HILL

Symposium on Blunt Trauma, Delaware County AGP, at Delaware County Memorial Hospital, October 29, 9 A.M.–4 P.M.; 6 hours AAGP. Contact E. D. Arsht, M.D., at the hospital, Lansdowne and Keystone Avenues (19026).

ERIE

General Interest Symposium, Erie Chapter AAGP and Lederle Laboratories, at Beachcomber, Erie, Pa.; October 26, 1966; AAGP 5 hours; Contact Richard H. Kuhn, M.D., 1820 W. 26th Street, Erie, Pa.

HARRISBURG

Medical Lectures, Harrisburg Polyclinic Hospital and University of Pennsylvania School of Medicine, at Polyclinic, October 25, November 22, February 28, March 28, and April 25, 10 A.M.–1 P.M.; 5 hours AAGP. Contact G. F. Zerbe, M.D., 1822 Market Street, Camp Hill 17011.

PHILADELPHIA

Nutritional Considerations in Disease, Philadelphia County Medical Society and Philadelphia AGP, at Philadelphia County Medical Society, 2100 Spring Garden Street; November 2, 1966; 9:00 A.M.–12:00 NOON; 1 to 5 P.M.; 8 to 10 P.M.; AAGP 9 hours; Contact Milton M. Perloff, M.D., 2923 Cheltenham Avenue, Philadelphia, Pa. 19150.

Pediatric Allergy, Temple University, at St. Christopher's Hospital for Children, Philadelphia, Pa.; November 2 and 3, 1966, starting at 2:00 P.M.; AAGP 12 hours; Contact Leonard S. Girsh, M.D., Beury Building, 3701 North Broad Street, Philadelphia, Pa. 19140.

Coronary Arteriography, American College of Cardiology and Hahnemann Medical College and Hospital, at Warwick Hotel, Philadelphia; November 11, 1966; 9:30 A.M. to 5:30 P.M.; AAGP 7½ hours; Contact Hratch Kasparian, M.D., 230 North Broad Street, Philadelphia, Pa. 19102.

Radiology and Radioisotopes, Albert Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa.; Wednesdays, March 15 to April 12, 1967; 2 to 4 P.M.; AAGP 10 hours; Contact Leonard J. Zimet, Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa. 19141.

Psychiatry and General Practice, Einstein Medical Center, York and Tabor Roads; Fridays, January 6 to April 14, 1967; 1:30 to 4:30 P.M.; AAGP 45 hours; Contact Leonard J. Zimet, Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa. 19141.

Clinical Endocrinology, Albert Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa.; Wednesdays, February 8 to April 26, 1967; 2 to 5 P.M.; AAGP 36 hours; Contact Mr. Leonard J. Zimet, Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa. 19141.

Advanced Electrocardiography, Albert Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa.; Wednesdays, February 15 to April 19, 1967; 1 to 4 P.M.; AAGP 30 hours; Contact Mr. Leonard J. Zimet, Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa. 19141.

Jefferson Medical College and the Pennsylvania State University will sponsor the following courses:

Recent Advances in Management of Respiratory Distress Syndrome, at Mercy Hospital; October 19, 1966; 9:30 A.M. to 12:00 NOON; AAGP 2 hours; Contact John H. Killough, M.D., 1025 Walnut Street, Philadelphia 7, Pa.

Psychiatry in General Practice, at Mercy Hospital; November 16, 1966; 9:30 A.M. to 12:00 NOON; AAGP 2 hours; Contact John H. Killough, M.D., 1025 Walnut Street, Philadelphia 7, Pa.

Bedside Diagnosis of Heart Disease, at Mercy Hospital; December 21, 1966; 9:30 A.M. to 12:00 NOON; AAGP 2 hours; Contact John H. Killough, M.D., 1025 Walnut Street, Philadelphia 7, Pa.

Malabsorption Syndromes as a Consequence of Pancreatic Disease, at Altoona Hospital; November 3, 1966; 10:00 A.M. to 12:30 P.M.; AAGP 2 hours; Contact John H. Killough, M.D., 1025 Walnut Street, Philadelphia 7, Pa.

Current Physiologic Concepts of Shock, at Altoona Hospital; November 17, 1966; 10:00 A.M. to 12:30 P.M.; AAGP 2 hours; Contact John H. Killough, M.D., 1025 Walnut Street, Philadelphia 7, Pa.

Urgent Care of Patient With a Head Injury; Acute Management of Spinal Cord Trauma, at Altoona Hospital; December 1, 1966; 10:00 A.M. to 12:30 P.M.; AAGP 2 hours; Contact John H. Killough, M.D., 1025 Walnut Street, Philadelphia 7, Pa.

Management of the Patient With Skeletal Trama: Surgical Management of Thoracic and Abdominal Trama, at Altoona Hospital; December 15, 1966; 10:00 A.M. to 12:30 P.M.; AAGP 2 hours; Contact John H. Killough, M.D., 1025 Walnut Street, Philadelphia 7, Pa.

Microsurgery of the Temporal Bone, Temple University School of

Medicine, first week of each month. Contact B. J. Ronis, M.D., Temple University School of Medicine, Broad and Ontario Streets (19140).

Advanced Seminar in Adult Office Psychiatry, Temple University Health Sciences Center, Wednesdays, October 26–January 4, 10 A.M.–1 P.M.; 30 hours AAGP. Contact H. K. Fischer, M.D., 3401 North Broad Street (19140).

Psychiatry, 1966, for the General Practitioner, Temple University Health Sciences Center, at Marriott Motor Hotel, November 5–6, 9 A.M.–4 P.M.; 10 hours AAGP. Contact R. B. Sloane, M.D., 3401 North Broad Street (19140).

Theory and Application of Gas Chromatography in Industry and Medicine, Hahnemann Medical College and Hospital, at Marriott Motor Hotel, October 26–28.

Applied Office Psychiatry for Graduate Physicians, at the Institute of the Pennsylvania Hospital, Wednesdays, 3–7 P.M., September 28 through December 21; AAGP accreditation; fee, $50. Contact Dr. Pulver, as above.

Office Psychiatry, Institute of the Pennsylvania Hospital, 4 hours each Thursday for 12 weeks, beginning September 28. Contact Dr. Pulver, as above.

Annual Course in Postgraduate Gastroenterology, American College of Gastroenterology, at Bellevue Stratford, with a session on instrument techniques at Albert Einstein Medical Center, Northern Division; course period—October 27–29. For further information, contact the ACG, 33 West Sixtieth Street, New York 10023.

Seventeenth Hahnemann Symposium, Nutritional Dysfunction, at Sheraton Hotel, in December. Donald Berkowitz, M.D., director.

General Internal Medicine, Hahnemann Medical College and Hospital, Wednesdays, October 5, 1966–March 29, 1967, 1–4 P.M.; 24 hours AAGP. Contact Drs. D. Mason, W. W. Oaks, and S. R. Bender, 230 North Broad Street (19102).

Bronchoesophagology, Drs. Charles M. Norris and Gabriel F. Tucker, Jr., November 28–December 9, 1966, and April 3–14, 1967; fee, $250. Contact Chevalier Jackson Clinic, Temple University Hospital, 3401 North Broad Street (19140).

Renal Failure, Hahnemann Medical College, at Sheraton Hotel, December 12–14, 9 A.M.–5 P.M. daily; 24 hours AAGP. Contact Albert N. Brest, M.D., 230 North Broad Street (19102).

Psychiatry and Clinical Medicine for Nonpsychiatrists, University of Pennsylvania Department of Psychiatry, 2:30 P.M.–5 P.M. Wednesdays, for 20 weeks, starting September 28; fee, $75. Contact W. L. Webb, M.D., Hospital of the University of Pennsylvania, Thirty-fourth and Spruce Streets (19104).

Recent Advances in Medicine, Temple University Hospital, Wednesdays, October 26 through December 14, 11 A.M.–4 P.M.; fee, $50. Contact A. J. Finestone, M.D., Temple University Medical Center (19140).

Applied Office Psychiatry and Psychosomatic Medicine, departments of psychiatry, internal medicine, obstetrics-gynecology, and pediatrics, Temple University Medical Center, at Temple University Sciences Center, Wednesdays, October 5 through February 22, 10 A.M.–3 P.M.; 80 hours AAGP. Contact H. K. Fischer, M.D., 3401 North Broad Street (19102).

Neurology, Wednesdays, 2–4 P.M. September 14–November 2; 16 hours AAGP.

Dermatology for the General Practitioner, Thursdays, 1–3:30 P.M., September 22–December 1; 25 hours AAGP.

Clinical Allergy, Thursdays, 2–5 P.M., September 20–December 22.

Gastroenterology, Wednesdays, 2–5 P.M., September 21–December 14; 36 hours AAGP.

Basic Electrocardiography, Wednesdays, 1–4 P.M., October 12–February 1; 45 hours AAGP.

PITTSBURGH

Seminars on Psychological Aspects of Medical Practice, University of Pittsburgh School of Medicine, at Staunton Clinic, September 21, 22, and December 14, 22, 10 A.M.–12 M. Contact R. A. Pittenger, M.D., 3601 Fifth Avenue (15213).

POTTSVILLE

At Pottsville Hospital, 11:30 A.M.–2 P.M. on dates specified; each 2 hours AAGP:

Fertility Control,* November 10.

Problems of the Menopause,* December 8.

READING

Liver Diseases and Miscellaneous Subjects, Hahnemann Medical College, at Community General Hospital, Wednesdays, September through May, 9:30 A.M. Contact E. L. Trexler, M.D., 15 South Franklin Street, Fleetwood 19522.

Continuing Medical Education Program, Berks County Medical Society and AGP, at Reading Hospital; October 5, November 2, December 7, 1966; January 11, February 1, March 1, April 5 and May 3, 1967; AAGP 32 hours; Contact A. A. Nagle, M.D., Stouchsburg, Pa.

WILKES-BARRE

At Wilkes-Barre General Hospital, 8 A.M.–12 M. on dates specified; each 3 hours AAGP:

Dermatologic Manifestations of Systemic Diseases,* October 20.

Endocrine Aspects of Non-Endocrine Tumors,* December 15.

WILLIAMSPORT

At Williamsport Hospital, 10 A.M.–3 P.M. on dates specified; each 4 hours AAGP:

Evaluation of Congenital-Developmental Orthopedic Defects,* October 19.

Pain: Psyche, Soma, and Drugs,* November 16.

Ocular and Neurological Manifestations of Systemic Disease,* December 21.

YORK

At York Hospital, 8 A.M.–12 M. on dates specified; fee, each course, $8.00; AAGP credit, each course, 3 hours:*

Immunity and Its Mechanisms in Producing Disease, October 20.

Readily Available Tests of Adrenal Function, October 27.

The Management of the Pulmonary Cripple During Surgery, November 3.

Digitalis and Quinidine—Who, Why, How, and When? November 10.

The Diagnosis of Renovascular Hypertension, November 17.

Problems of Surgery in Children, December 1.

Neoplasms of the Uterus and Ovary, December 8.

Current Considerations in the Management of Vaginitis and Vulvar Disease, December, 15.

• **About This Section:** To be publicized, courses must be one-half day (three hours) or more in length, designed for licensed doctors of medicine, and of interest to physicians in an area of several counties or more. Information must be received by the first day of each month, to appear the following month. Each item will appear no more than four times. Address: Commission on Medical Education, 230 State Street, Harrisburg 17105.

what
time
is it?

For the past
two years
there's been
one new case
of active tuberculosis
reported for every
four thousand
of U.S. population.

it's time
to tine.

Tuberculin,
Tine Test
(Rosenthal) Lederle

Available in 5's and 25's.
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postoperative atelectasis of remaining right lung after pneumonectomy*

To clear the airway in bronchopulmonary disease—DORNAVAC® (pancreatic dornase)

Only DORNAVAC—the pancreatic enzyme for inhalation therapy—offers:

- selective action against DNA-protein complex—a major contributor to the viscosity of purulent secretions
- pancreatic enzyme lyses extracellular accumulations and disintegrating cells only, not living tissue
- no reports of foaming within lungs—often a problem with detergents
- wide margin of safety—attested by years of extensive clinical use
- compatibility with IPPB and other equipment

Successful in removing thick mucus and pus even in far-advanced bronchopulmonary diseases[1]

"A broad spectrum of chronic bronchopulmonary disease has been treated with this enzyme [DORNAVAC] and it has been found useful in patients with pulmonary disease complicated by thick secretions or thick pus, such as bronchiectasis or lung abscess. It has proved to be of real value in patients with chronic debilitating diseases who develop pulmonary complications and have difficulty in raising sputum. In these cases, as with postoperative patients, it has been lifesaving."[2]

In addition to bronchiectasis and lung abscess, DORNAVAC has been useful in reducing the tenacity of purulent secretions in such conditions as atelectasis; emphysema; unresolved pneumonia; chronic purulent bronchitis; and chronic bronchial asthma.

complete reexpansion of remaining right lung after three days of treatment with DORNAVAC® (pancreatic dornase)*

degrades and thins thick, adherent, mucopurulent secretions on contact.

References: 1. Cliffton, E. E.: Dis. Chest *30*:373, Oct., 1956. 2. Cliffton, E. E., and Grossi, C. E.: Cancer *14*:414, Mar.-April, 1961.
Indications: For lysing purulent exudates in bronchopulmonary infections, paranasal sinus infections, tracheitis sicca, cystic fibrosis of the pancreas, and purulent urologic conditions. Aerosolized DORNAVAC may be a useful adjunct to obtain a specimen of bronchial secretions and cellular debris for cytologic study in suspected bronchogenic carcinoma.
Precautions: Do not administer parenterally.
Side effects: Pharyngeal irritation and anaphylactoid type reactions have occurred. The possibility of sensitivity to beef protein should be borne in mind.
Before prescribing or administering, read product circular *with package or available on request.*

DORNAVAC®
PANCREATIC DORNASE

A key agent in the total therapeutic regimen for mucopurulent bronchopulmonary conditions

NEW, EASY-TO-USE PACKAGE: DORNAVAC may now be reconstituted by simply pouring the diluent into the vial containing the active material.

Now, DORNAVAC is protected by stoppering under an inert gas.

Since there is no vacuum, *a needle and syringe are not needed* unless aseptic reconstitution is desired. Convenient tear-down tabs and wide-mouth vials make it easy to pour diluent into the vial containing DORNAVAC.

*Roentgenograms courtesy of E. E. Cliffton, M.D., and C. E. Grossi, M.D.: Amer. J. Surg. *100*:447, Sept., 1960.

MSD **MERCK SHARP & DOHME** | **where today's theory is tomorrow's therapy**
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SQUIBB NOTES ON THERAPY

Breast-feeding and the "modern mother"

Despite a mild resurgence of interest in the importance of breast-feeding a few years ago, many women today do not choose to nurse their young. This is for a variety of reasons—social, economic, cultural and sometimes medical. In such cases the physician's task is to find the most suitable means of preventing lactation and easing the pain of breast engorgement.

The means of therapy

The value of hormone therapy for this indication is of course well established. Both androgen and estrogen are known to inhibit the production and secretion of the lactogenic hormone by the anterior pituitary. As estrogen levels decline sharply at parturition, lactogenesis is established. When androgen and estrogen are administered to the patient before the release of the lactogenic hormone lactation and breast engorgement are usually prevented.

The time of therapy

The time of administration of this combined medication is crucial; it must be given early enough to suppress the pituitary prolactin and last long enough to permit physiologic readjustment during the puerperium. Excellent results are most often seen when therapy is administered before the onset of the second stage of labor.

However, factors other than effectiveness must also be considered. The agent selected should not interfere in any way with parturition, subsequent uterine involution and the restoration of normal ovarian cyclic function. Furthermore, it should not cause rebound breast engorgement or other manifestations of hormonal imbalance.

A balanced formulation

Providing single-dose therapy for the prevention of lactation and breast engorgement, Deladumone OB is a potent androgen-estrogen combination with a prolonged action. The optimal balance of androgenic and estrogenic hormones achieved in this preparation minimizes the disadvantages inherent in single hormone therapy, such as rebound breast engorgement. Involution of the uterus and resumption of menstrual cycles are not affected.

As reported in a recent published study (Roser, D. M.: Obstet. & Gynec. *27*:73, 1966), Deladumone OB provided good suppression of breast engorgement in 95.3% and suppression of lactation in 81.1% of 86 obstetrical patients. These results are in general agreement with those of many earlier investigations; in several studies this injectable androgen-estrogen combination proved to be superior to oral medication.

Dosage:

As a single injection of 2 cc. before the onset of the second stage of labor.

Contraindications:

Established or suspected mammary cancer or genital malignancy.

Precautions and Side Effects:

Certain patients may be unusually responsive to either estrogenic or androgenic therapy. In such individuals virilization, uterine bleeding or mastodynia may occur.

Supply:

Deladumone OB, providing 180 mg. testosterone enanthate and 8 mg. estradiol valerate per cc., is available in 2 cc. Unimatic® disposable syringes and in 2 cc. vials. Both preparations are dissolved in sesame oil, with 2% benzyl alcohol as a preservative. *Before use, consult product literature for full prescribing information.*

Deladumone® OB

Squibb Testosterone Enanthate (180 mg./cc.) and Estradiol Valerate (8 mg./cc.)

Single-dose injection for lactation inhibition

SQUIBB *'The Priceless Ingredient' of every product is the honor and integrity of its maker.*

Deaths

○ Indicates current membership in County Medical Society, The Pennsylvania Medical Society, and The American Medical Association.

○ **Cyril B. Bell,** Glen Campbell; Queens University Medical School, 1923; age 67; died July 1, 1966. He is survived by his wife and son.

Fred W. Bencker, Upper Darby; Temple University School of Medicine, 1925; age 66; died July 21, 1966. Dr. Bencker during the last 20 years practiced at Lake Worth, Fla., and was on the staff of two hospitals there and two at West Palm Beach. He is survived by his wife, a brother and two sisters.

David T. Brewster, Jr., Montrose; New York Medical College, 1911; age 80; died July 25, 1966. Dr. Brewster served in the Medical Corps in both World Wars. He is survived by three sons.

○ **William M. Faber,** Pottstown; University of Wisconsin Medical School, 1938; age 54; died July 5, 1966. Dr. Faber was a lecturer at the Mayo Clinic from 1942 to 1948 and a fellow and first assistant of internal medicine at the Clinic. He received a Master of Science degree from the University of Minnesota in 1948. His survivors include his father, two brothers and a sister.

○ **John R. Glassburn,** Pittsburgh; Hahnemann Medical College, 1934; age 58; died July 31, 1966. Dr. Glassburn, who served as a Navy Reserve commander during World War II, was on the staff of Shadyside Hospital. He is survived by his wife, a son, and a daughter.

○ **George W. Grier,** Pittsburgh; Jefferson Medical College, 1904; age 83; died July 23, 1966. Dr. Grier was a past president of the American Roentgen Society and the Allegheny County Medical Society and a past chairman of the AMA. He was founder and professor emeritus of the radiology department of the University of Pittsburgh. From 1906 until his death, he was a radiology specialist at sixteen hospitals in the Pittsburgh area. Survivors include his wife, two brothers and a sister.

○ **Earl B. Hartman,** Nazareth; Temple University School of Medicine, 1934; age 56; died July 27, 1966. Dr. Hartman was a staff member at St. Luke's Hospital, Bethlehem, and Gracedale Hospital, Nazareth. He is survived by his wife, a son, two daughters, a brother and a sister.

Leonard C. Honesty, Washington; University of Michigan Medical School, 1902; age 91; died July 13, 1966. Dr. Honesty received a citation in 1952 from the PMS for 50 years service and was an honorary member of the Medical Staff of Washington Hospital. We have received no information regarding survivors.

○ **Horace H. Hunsicker,** Penns Park; Hahnemann Medical College, 1929; age 63; died August 7, 1966. Dr. Hunsicker had been associated with Philadelphia State Hospital at Byberry for the past 16 years. He was also associated with several training schools and Allentown State Hospital. His survivors include his wife, a brother, and a sister.

○ **Richard P. Jahnig,** Cresson; Jefferson Medical College, 1931; age 60; died July 25, 1966. Dr. Jahnig served with the Army Medical Corps during World War II. He is survived by his wife and a sister.

David H. Keller, Stroudsburg; University of Pennsylvania Medical School, 1903; age 85; died July 13, 1966. Among his survivors are his wife and two daughters.

○ **Frederick H. Krass,** Philadelphia; University of Pennsylvania Medical School, 1929; age 67; died July 17, 1966. Dr. Krauss is survived by his wife.

Luther A. Lenker, Camp Hill; University of Maryland School of Medicine, 1938; age 55; died August 9, 1966. Dr. Lenker was on the Board of Directors and a past president of the Tri-County Heart Association, an associate in the Indoor Medical Service of Harrisburg Hospital, Director of Health for the School of Nursing of Harrisburg Hospital, and a member of the Harrisburg Academy of Medicine. He served as a flight surgeon during World War II and was awarded the Bronze Star. Dr. Lenker is survived by his wife, a daughter, and two sisters.

○ **John V. McAninch,** McDonald; College of Physicians and Surgeons, 1914; age 84; died July 22, 1966. Dr. McAninch was honored in 1964 by the Washington County Medical Society for his 50th year in medicine. Survivors include his wife, a daughter, a son, and a sister.

Maurice H. Neumuller, Lansford; Hahnemann Medical College, 1902; age 89; died July 5, 1966. Dr. Neumuller observed his golden anniversary as a physician in 1952 and shortly thereafter was awarded a certificate of distinction by Hahnemann as the surviving member of the college's Class of 1902. Several years after his internship he enrolled at the University of Vienna, Austria, to continue his studies. Survivors include two sisters.

○ **Joseph S. Puleo,** Norristown; Jefferson Medical College, 1964; age 44; died August 7, 1966. Dr. Puleo served in the Navy Medical Corps during World War II. He is survived by his mother, his wife, three sons, a brother and a sister.

○ **Joyce T. Sheridan,** Philadelphia; Northwestern University Medical School, 1922; age 69; died August 4, 1966. Dr. Sheridan was a past president of the Delaware Valley Diabetes Association and one of the developers of a summer camp for diabetic children. He was also a member of the Philadelphia College of Physicians and the American Diabetes Association. Surviving are his wife, a daughter, a son, and a sister.

○ **Richard J. Simon,** Pittsburgh; University of Pittsburgh School of Medicine, 1929; age 78; died July 8, 1966. Survivors include his wife and a brother.

○ **Jack Steele,** Allentown; New York University Medical School, 1943; age 48; died July 27, 1966. He is survived by his wife, a son, a daughter, a sister and a brother.

○ **Arthur H. Thompson, Sr.,** Pittsburgh; University of Pittsburgh School of Medicine, 1931; age 59; died July 31, 1966. Dr. Thompson, who retired from the Army in 1957, was a veteran of World War II. He is survived by his wife, two sons, a daughter, and a brother.

○ **James W. Wood,** Chester; Jefferson Medical College, 1909; age 84; died July 30, 1966. He was chief of medical service at Chester Hospital. His wife survives.

○ **Eleanor H. Yeakel,** Haverford; University of Pennsylvania School of Medicine, 1955; age 54; died August 4, 1966. She is survived by her mother.

SQUIBB NOTES ON THERAPY

Behind continued high blood pressure readings lies the possibility of organic damage[1-13]

MANY OF THE aspects of essential hypertension are unpredictable—either because there are a number of mechanisms involved or because individuals differ in their responses to these mechanisms.[1]

There is one aspect of hypertension, however, that seems, in many cases, predictable. ". . . when the blood pressure is elevated to a marked degree for an adequate period of time, this in itself leads to perpetuation of the syndrome with resulting vascular damage throughout the body."[14] All too often the disease progresses until there is damage to one of three vital organs: the heart, the kidney, the brain.

> "Hypertension is certainly a major factor in the genesis of coronary heart disease, and it is even more important when compounded with obesity."[4]
>
> "[Vascular deterioration] can be clearly seen in the kidney with a degree of damage that can be measured by renal function studies."[10]

". . . most evidence suggests that reduction of blood pressure, when it is too high, not only relieves the heart of excess work but reduces vascular damage."[1]

"In short, treatment is indicated."[1]

Antihypertensive therapy will not restore the blood vessels to normal. Yet many of the vascular changes and symptoms caused by increased blood pressure may be arrested or alleviated when the blood pressure is reduced to normotensive levels.[7]

Reducing the blood pressure helps curtail further vascular damage and improves the prognosis — when damage is not too far advanced before therapy is started.[14] Essential hypertension is an indication not only for treatment, but for *early* and adequate treatment of the patient in question.

Reduce the blood pressure with Rautrax-N

Rautrax-N combines the antihypertensive-tranquilizing action of whole root rauwolfia with the antihypertensive-diuretic action of bendroflumethiazide in one convenient medication. The two drugs complement each other so that smaller doses of both are possible.

Rauwolfia combined with bendroflumethiazide is particularly effective in long-term therapy,[15-17] since beneficial effects do not diminish with continuous daily administration.

For most patients 1 or 2 Rautrax-N tablets daily are sufficient for maintenance therapy. The simplicity, convenience and economy of such a dosage schedule are of particular benefit to older patients.

References: **1.** Page, I. H., and Dustan, H. P.: The Usefulness of Drugs in the Treatment of Hypertension, in Ingelfinger, F. J.; Relman, A. S., and Finland, M.: Controversy in Internal Medicine, Philadelphia, W. B. Saunders Co., 1966, p. 95. **2.** Hollander, W.: The Evaluation of Antihypertensive Therapy of Essential Hypertension in Ingelfinger, F. J.; Relman, A. S., and Finland, M.: Controversy in Internal Medicine, Philadelphia, W. B. Saunders Co., 1966, p. 97. **3.** Nickerson, M.: Antihypertensive Agents and the Drug Therapy of Hypertension, in Goodman, L. S., and Gilman, A.: The Pharmacological Basis of Therapeutics, ed. 3, New York, The Macmillan Co., 1965, p. 727. **4.** Berkson, D. M.: Indust. Med. & Surg. **32**:371, 1963. **5.** Cohen, B. M.: M. Times **91**:645, 1963. **6.** Lee, R. E., et al.: Am. J. Cardiol. **11**:738, 1963. **7.** Moyer, J. H.: Am. J. Cardiol. **9**:821, 1962. **8.** Moser, M.: New York J. Med. **62**:1177, 1962. **9.** Wood, J. E., and Battey, L. L.: Am. J. Cardiol. **9**:675, 1962. **10.** Moyer, J. H., and Heider, C.: Am. J. Cardiol. **9**:920, 1962. **11.** Moser, M., and Macaulay, A. I.: New York State J. Med. **60**:2679, 1960. **12.** Judson, W. E.: Nebraska M. J. **44**:305, 1959. **13.** Hodge, J. V.; McQueen, E. G., and Smirk, H.: Brit. M. J. **1**:5218, 1961. **14.** Moyer, J. H., and Brest, A. N.: Hypertension Recent Advances, Philadelphia, Lea & Febiger, 1961, p. 633. **15.** Berry, R. L., and Bray, H. P.: J. Am. Geriatrics Soc. **10**:516, 1962. **16.** Reid, W. J.: J. Am. Geriatrics Soc. **13**:365, 1965. **17.** Feldman, L. H.: North Carolina M. J. **23**:248, 1962.

Contraindications: Severe renal impairment or previous hypersensitivity. **Warning:** Ulcerative small bowel lesions have occurred with potassium-containing thiazide preparations or with enteric-coated potassium salts supplementally. Stop medication if abdominal pain, distension, nausea, vomiting or G.I. bleeding occur.

Precautions and Side Effects: The dose of ganglionic blocking agents, veratrum or hydralazine when used concomitantly must be reduced by at least 50% to avoid orthostatic hypotension. Caution is indicated in patients with depression, suicidal tendencies, peptic ulcer; electrolyte disturbances are possible in cirrhotic or digitalized patients. Marked hypotension during surgery is possible; consider discontinuing two weeks prior to elective surgery and observe patients closely during emergency surgery. Rauwolfia preparations may cause reversible extrapyramidal symptoms and emotional depression, diarrhea, weight gain, edema, drowsiness may occur. Bendroflumethiazide may cause increases in serum uric acid, unmask diabetes, increase glycemia and glycosuria in diabetic patients, and may cause hypochloremic alkalosis, hypokalemia; cramps, pruritus, paresthesias, rashes may occur.

Dosage and Supply: Initial dosage, 1 to 4 tablets daily, preferably at mealtime. Maintenance, 1 or 2 tablets daily. Rautrax-N is supplied as capsule-shaped tablets containing 50 mg. Rauwolfia serpentina whole root (Raudixin®), 4 mg. bendroflumethiazide (Naturetin®), 400 mg. potassium chloride.

Also available: Rautrax-N Modified — capsule-shaped tablets containing 50 mg. Rauwolfia serpentina whole root (Raudixin), 2 mg. bendroflumethiazide (Naturetin), 400 mg. potassium chloride. Both potencies available in bottles of 100. For full information, see Product Brief.

RAUTRAX®-N

Squibb Rauwolfia Serpentina Whole Root (50 mg.) with Bendroflumethiazide (4 mg.) and Potassium Chloride (400 mg.)

SQUIBB

'The Priceless Ingredient' of every product is the honor and integrity of its maker.

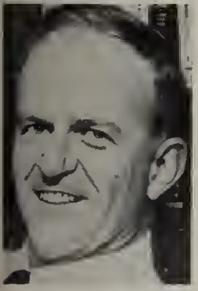
M.D.'s in The News

DR. HORA

Dr. James F. Hora has been appointed an Associate in the Department of Otolaryngology at The Geisinger Medical Center.

Bernard L. Segal, M.D., associate Professor of Medicine, Hahnemann Medical College and Hospital of Philadelphia, will conduct a course in Bedside Diagnosis of Heart Disease for the Turkish Medical Society in Istanbul, Turkey.

Woodrow D. Schlosser, M.D., Philadelphia, was elected to membership in the American Otologic Society in 1966. Membership in the Society is limited to one hundred. (In August, Pennsylvania Medicine noted James M. Cole, M.D., Danville, as being one of only two Pennsylvanians honored by membership. Dr. Schlosser is the other physician so honored.)



DR. PATTISHALL

Dr. Evan G. Pattishall, Jr., has been appointed professor and chairman of the department of behavioral science of the College of Medicine of The Pennsylvania State University, located at the Milton S. Hershey Medical Center.

Dr. Abraham Cantarow, a national figure in medical education and recently retired from Jefferson Medical College, has been appointed chief of program planning in the extramural branch of the National Cancer Insititute of the National Institutes of Health, Bethesda, Maryland.

Dr. John H. Gibbon, Jr., of Philadelphia received the American Heart Association's Research Achievement Award for his pioneering contribution in the development of the heart-lung machine. AHA Awards of Merit were conferred upon **Dr. Wendell B. Gordon** of Pittsburgh, and **Dr. John P. Hubbard** of Philadelphia, in recognition of their distinguished service in the development of national programs.

Dr. Harry E. Bacon, Philadelphia, was guest speaker at the University of the Andes in Merida, Venezuela. His topics were Cancer of the Rectum, Diverticulitis and the Management of Complicated Fistula.

The Obstetrical Society of Philadelphia has elected its officers for the 1966-67 term: **Dr. George C. Lewis, Jr.,** President; **Dr. John D. Corbit, Jr.,** President-elect; **Dr. Harry Fields,** First Vice-president; **Dr. Elsie R. Carrington,** Second Vice-president; **Dr. Warren R. Lang,** Secretary, and **Dr. Theodore P. Reed,** Treasurer.

Dr. Landrum B. Shettles recently received an honorary degree of doctor of science from Mississippi College. Dr. Shettles, an associate professor of obstetrics and gynecology at the College of Physicians and Surgeons of Columbia University, was cited for his extensive research in conception and implantation.

Dr. Anthony T. LeDonne, chief resident in obstetrics and gynecology at Fitzgerald Mercy Hospital, Darby, Pennsylvania, has been awarded the Resident's Prize by the Obstetrical Society of Philadelphia. The award was presented for Dr. LeDonne's research paper on "The Effects of an Oxytocic on Umbilical Cord Venous Pressure."

Dr. Marvin Loev has been appointed to the staff of Lower Bucks County Hospital.

DR. HALL

Dr. Robert M. Hall, a former oral surgeon from Pittsburgh, Pennsylvania, has been invited by the Soviet Ministry of Health to demonstrate and lecture on his world famous compressed air surgical tools. **Dr. Hall** recently won the coveted "Master Design Award of 1966" for his originality in concept and his products' significant contribution to human welfare. **Dr. Hall's** air instruments are the first major innovation in bone cutting and shaping in a century. His equipment is used by over twelve thousand American surgeons in over two thousand U. S. hospitals and medical centers.

DR. PREHN

Richmond Talbot Prehn, M.D., has been named Senior Member in the Division of Pathology of The Institute for Cancer Research, Philadelphia. As Senior Member, he will be working at the Institute in the field of experimental carcinogenesis and will be collaborating with other members of the Institute.

Dr. Randolph C. Blodgett, Jr. whose special field of interest is rheumatology, has been appointed an Associate in the Department of Internal Medicine at The Geisinger Medical Center. **Dr. Blodgett** comes to the Medical Center from the Mayo Clinic where he has been an assistant in Internal Medicine since 1963.

Dr. Johnson Luders has been named chief of obstetrics and gynecology at Jeanes Hospital, Fox Chase, Pennsylvania.

DR. WATTS

Dr. Harvey F. Watts has been appointed Director of the Department of Pathology at Episcopal Hospital, Philadelphia. A graduate of Temple University School of Medicine, Dr. Watts is currently professor of Pathology at his Alma Mater.

Dr. Alma Dea Morani, Professor of Clinical Surgery at Woman's Medical College, was recently elected Vice-president of the Medical Women's International Association at the X Congress held in Rochester, New York July 9-15.

Dr. Mario A. Castallo, clinical professor of obstetrics and gynecology, has been elected President of the Jefferson Medical College Alumni Association.

Dr. George Hahn, professor of obstetrics and gynecology at Jefferson Medical College, has just returned from Nicaragua as a volunteer obstetrician-gynecologist aboard the S.S. Hope, the hospital ship dedicated to medical teaching and treatment.

SQUIBB NOTES ON THERAPY

MOLECULAR REMODELING–

laboratory exercise or clinical necessity?

More than twenty-five years have passed since the discovery of the diuretic activity of sulfanilamide started pharmacologists on a succession of molecular remodelings to find the ideal diuretic.

Diuresis–a sought-after clinical effect from an unwanted side effect

It started in 1937 when a clinician reported that the administration of a sulfonamide was sometimes accompanied by an unexplainable side effect–metabolic acidosis.[1] Three years later the side effect was explained. The sulfonamide radical of sulfanilamide inhibited carbonic anhydrase,[2] the enzyme responsible for converting carbon dioxide and water to hydrogen ions and bicarbonate ions.

Later, other investigators showed by dog experiments that metabolic acidosis probably resulted when the inhibition of carbonic anhydrase upset the exchange of hydrogen and sodium ions, causing increased excretion of sodium as the bicarbonate.[3]

It was twelve long years after the first report of the unexplainable side effect (metabolic acidosis) that it was finally shown that large doses of sulfanilamide administered to edematous patients were indeed capable of promoting diuresis.[4] However, the possibility of toxic effects from its prolonged use and its relatively weak diuretic action made it impractical for clinical use as a diuretic.[5]

Because the inhibition of carbonic anhydrase seemed to be the key to effective diuresis, investigators began to look for more potent enzyme inhibitors—in the hopes that they would be more effective diuretics.

The most important of these early compounds, acetazolamide, enjoyed several years of fairly wide clinical use.

Its carbonic anhydrase inhibitory activity was several hundred times greater than that of sulfanilamide.[6] The increase in inhibitory activity, however, increased not only the excretion of sodium and bicarbonate ions, but also the excretion of potassium.[7] And, like its predecessor, acetazolamide precipitated mild acidosis. Its prolonged use could result in hypokalemic acidosis.[7]

The 'thiazides'–an answer to the metabolic acidosis caused by carbonic anhydrase inhibition

Despite the fact that the sulfonamide group appeared to be responsible for carbonic anhydrase inhibition which in turn appeared to be responsible for diuresis, investigators began to synthesize compounds with structural alterations to the sulfonamide group.

The first major breakthrough came with the synthesis of chlorothiazide. Altering the sulfonamide group did indeed alter the ability of chlorothiazide to inhibit carbonic anhydrase–it was only 1/10th as potent as acetazolamide in inhibiting the enzyme.[8] Despite the drop in inhibitory potency, however, chlorothiazide proved to be an effective diuretic–an observation that led to the conclusion that its diuretic action was due to some mechanism other than its action on carbonic anhydrase.[9, 10]

For effective diuresis, chlorothiazide was administered in daily dosages ranging from 250 to 2000 mg.[11] It increased the excretion of sodium and chloride; and, to a lesser extent, potassium and bicarbonate.[11] The excretion of potassium appeared to be maximal at higher dose levels at which, theoretically, the carbonic anhydrase inhibitory effect is more active.[11] Its prolonged use, therefore, could sometimes result in metabolic hypokalemic, hypochloremic alkalosis.[7]

Naturetin–effective diuresis with more favorable electrolyte balance

Other thiazides followed—with improvements being aimed at two particular areas: 1. attempts to increase diuretic action in relation to the milligram potency of the drug, and 2. attempts at a more favorable sodium/potassium ratio in the urine, i.e., to decrease the excretion of potassium while maintaining the excretion of sodium.[12]

One of these, Naturetin, Squibb Bendroflumethiazide, has made advances on both these points. "By adding a 3-benzyl radical to hydroflumethiazide a rather dramatic reduction in dose range is accomplished. With this drug, effective sodium excretion is obtained with doses between 2.5 and 10 mg., which is a 200 to 1 ratio as compared to chlorothiazide..."[13]

Moreover, due probably to its virtual lack of carbonic anhydrase inhibition, Naturetin (bendroflumethiazide) has been shown to cause less potassium and bicarbonate loss and less alteration in urinary pH than either chlorothiazide or hydrochlorothiazide.

Naturetin is outstandingly effective not only in establishing, but also in maintaining, excretion of retained fluid in edematous patients. And its duration of action is sufficiently prolonged to allow a single daily administration in most patients. Naturetin is also an effective antihypertensive agent.

Contraindications: Severe renal impairment; previous hypersensitivity.

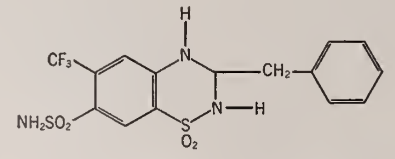
Warning: Ulcerative small bowel lesions have occurred with potassium-containing thiazide preparations or with enteric-coated potassium salts supplementally. Stop medication if abdominal pain, distension, nausea, vomiting, or G.I. bleeding occur.

Precautions: The dosage of ganglionic blocking agents, veratrum, or hydralazine when used concomitantly must be reduced by at least 50% to avoid orthostatic hypotension. Electrolyte disturbances are possible in cirrhotic or digitalized patients.

Side Effects: Bendroflumethiazide may cause increases in serum uric acid, unmask diabetes, increase glycemia and glycosuria in diabetic patients and may cause hypochloremic alkalosis, hypokalemia; cramps, pruritus, paresthesias, and rashes may occur.

Supplied: Naturetin (Squibb Bendroflumethiazide) 5 mg. and 2.5 mg. tablets. Also available Naturetin c̄ K [Squibb Bendroflumethiazide (5 or 2.5 mg.) with Potassium Chloride (500 mg.)]. For full information, see Product Brief.

References: **1.** Southworth, H.: Proc. Soc. Exper. Biol. & Med. *36*:58, 1937. **2.** Mann, T. and Keilin, D.: Nature *146*:164, 1940. **3.** Pitts, R. F., and Alexander, R. S.: Am. J. Physiol. *144*:239, 1945. **4.** Schwartz, W. B.: New England J. Med. *240*:173, 1949. **5.** Friedberg, C. K., in Moyer, J. H., and Fuchs, M.: Edema Mechanisms and Management, Philadelphia, W. B. Saunders Co., 1960, p. 259. **6.** Cumming, J. R.; Tabachnick, E., and Seelig, M., in Moyer, J. H., and Fuchs, M.: op. cit., p. 254. **7.** Werko, L., in Moyer, J. H., and Fuchs, M.: op. cit., p. 188. **8.** Beyer, K. H., Jr., in Moyer, J. H., and Fuchs, M.: op. cit., p. 274. **9.** Maren, T. H., and Wiley, C. E.: J. Pharmacol. & Exper. Therap. *143*:230, 1964. **10.** Earley, L. E., and Orloff, J.: Ann. Rev. Med. *15*:149, 1964. **11.** Fuchs, M., and Mallin, S. R., in Moyer, J. H., and Fuchs, M.: op. cit., p. 276. **12.** Ford, R. V., in Moyer, J. H., and Fuchs, M.: op. cit., p. 290. **13.** cited in Fuchs, M., and Mallin, S. R. (ref. 11): op. cit., p. 283.



Naturetin®

SQUIBB BENDROFLUMETHIAZIDE

to reduce excess fluid
or high blood pressure

SQUIBB

'The Priceless Ingredient' of every product is the honor and integrity of its maker.

fall 1966

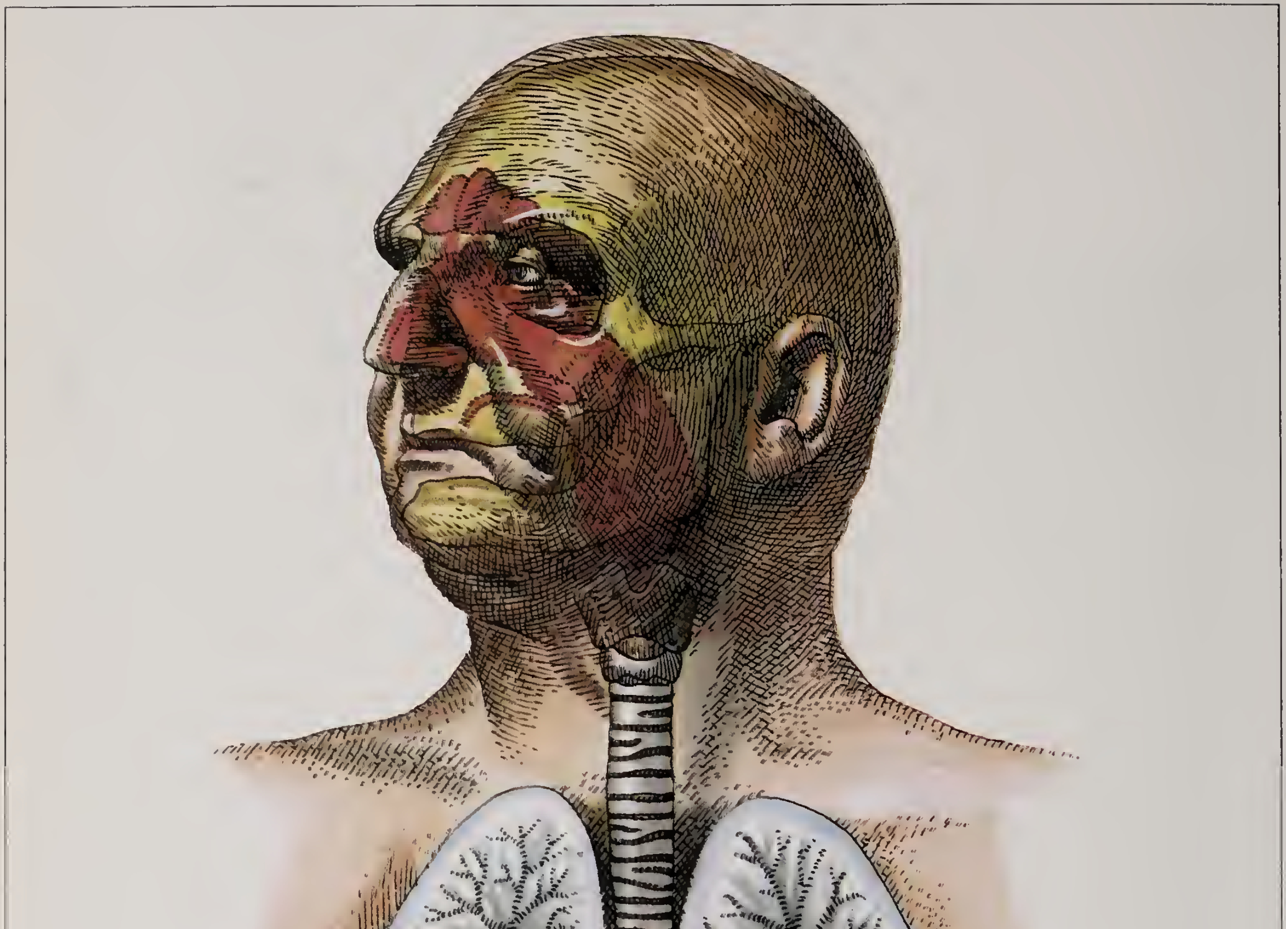
DORSEY Season

A journal within a journal published quarterly in the interests of better medicine by Dorsey Laboratories, a division of The Wander Company, Lincoln, Nebraska. Address communications to Raymond C. Pogge, M.D., Director of Medicine.

this issue: the common cold and the aging patient

the common cold and the aging patient

Louis J. Vorhaus, II, M.D., F.A.C.P.



Effects of aging on the anatomic and physiologic aspects of the respiratory apparatus.

The chest becomes more fixed, less mobile and less elastic as the bronchial walls and thoracic ligaments lose elasticity. The diaphragm and intercostal muscles atrophy and weaken. The lungs become smaller, flabbier and weigh less, decreasing vital and total lung capacity, increasing residual volume and the alveolar dead space.

Sir William Osler described pneumonia as the welcome friend of the aged patient, because the patient with pneumonia usually died quietly. But today, the well-informed physician is an even better friend of the aging patient, since it is better to live than to die, no matter how quietly.

One of the first avenues of approach in the control of the hazards of respiratory disease in the aging patient is prompt and proper attention to the common cold or upper respiratory infection. The common cold may be the first step in the relatively short path to lower respiratory infection, broncho-pneumonia and death. This train of events occurs frequently among older persons. Indeed, pneumonia is one of the most common causes of their admission to hospitals and ranks high on the list of geriatric killers. Colds are more debilitating in elderly people and the aged are more likely candidates for secondary infections such as sinusitis and bronchitis. These infections, in turn, are more prone to lead to bronchopneumonia, because of lowered resistance and anatomic and physiologic changes in the lungs of the elderly.

What is different about the respiratory tree of an aged person and that of an otherwise healthy younger adult? Aging certainly takes its toll on all parts of the body, affecting both anatomic and physiologic aspects of the respiratory apparatus. These changes are in part due to the wear and tear that occurs over the years; the repeated bouts of respiratory infection, long exposure to atmospheric pollutants, to occupational inhalants, smoking, malnutrition, obesity, inactivity and the development of other diseases which may affect the lungs.

With the passage of years, the lungs change. They become scarred and emphysematous and lose their compliance. The whole chest becomes more fixed, less mobile and less elastic.

the anatomic changes that occur in aging render the lungs less efficient. Tests of pulmonary function in senescence show a deterioration characterized by a decrease in vital capacity and total lung capacity, an increase in residual volume and alveolar dead space. Maximum breathing capacity is reduced and uniformity of ventilation deteriorates. These problems are often aggravated by the obstructed breathing, fever and secondary infection associated with the common cold, placing an additional stress on the entire cardiopulmonary reserve.

In addition, the efficiency of a cough is below par in older persons even though they are in good health. This is partly due to the decreased respiratory excursions and distensibility of the chest wall, and partly from loss of elasticity of bronchial walls which tend to make them collapse in a cough.

The elderly patient's resistance to infection is often reduced. Nutritional deficiencies are more common in aged people. There is some evidence to indicate that their capacity to respond to stress is less efficient. Finally, there is often relatively meager symptomatic response to acute disease. The absence of obvious or dramatic clinical signs and symptoms of severe illness is particularly dangerous because, coming as it

(concluded on following page)

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does in a person whose defenses are weakened both locally and systemically, pulmonary disease may progress rapidly to irreversible stages before medical attention is sought. Respiratory infection is especially hazardous because the aged patient responds badly to hypoxia. Not only is his response to oxygen lack impaired, but the work of breathing, due to decreased compliance of the lung and increased stiffness of the thorax, is markedly augmented.

Many patients late in life are in a precarious and delicate cardiopulmonary balance which is easily decompensated from relatively minor insults such as colds and upper respiratory infections.

For all of these reasons, geriatricians long have stressed the importance of preventing respiratory insults. Today we have better ways of treating respiratory infection, improved techniques for clearing the lungs and bronchial tubes of secretions and better understanding of ways of improving ventilation. We possess a broader spectrum of antimicrobial agents including newer ones to deal with previously resistant organisms. Even so, the death rate from pneumonia is high in older people, and it is preferable to avoid the disease than to treat it. To do so, attention must be paid to the general maintenance of good health and all that implies, as well as to the prevention, elimination and treatment of associated conditions that predispose to or cause pneumonia such as chronic upper or lower respiratory infection, respiratory allergy, chronic sinusitis and exposure to inspired irritants.

Colds and other minor respiratory infections, which favor the development of broncho-pneumonia, should be treated vigorously and promptly, particularly those patients whose aging process has been accompanied by the development of chronic pulmonary disease. Upper respiratory passages should be cleared with decongestants. Sinuses should be drained adequately. And, when indicated, appropriate antimicrobial therapy should be instituted before serious infection of the lower respiratory tree supervenes.

In decades past it was understandable that physicians welcomed pneumonia for the aged patients because it offered them a quiet and peaceful demise. Today we recognize that in many cases, peaceful as it may have been, such deaths were often avoidable. With the current knowledge and understanding of the problems that respiratory infections impose on aging people, vigilant medical attention can often restore them to a vigorous, rewarding and productive life so that the many opportunities that exist today for people to enjoy their golden years are realized and not stolen by untimely death.

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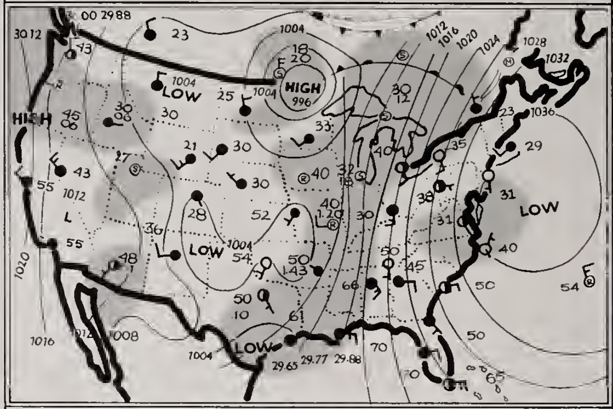

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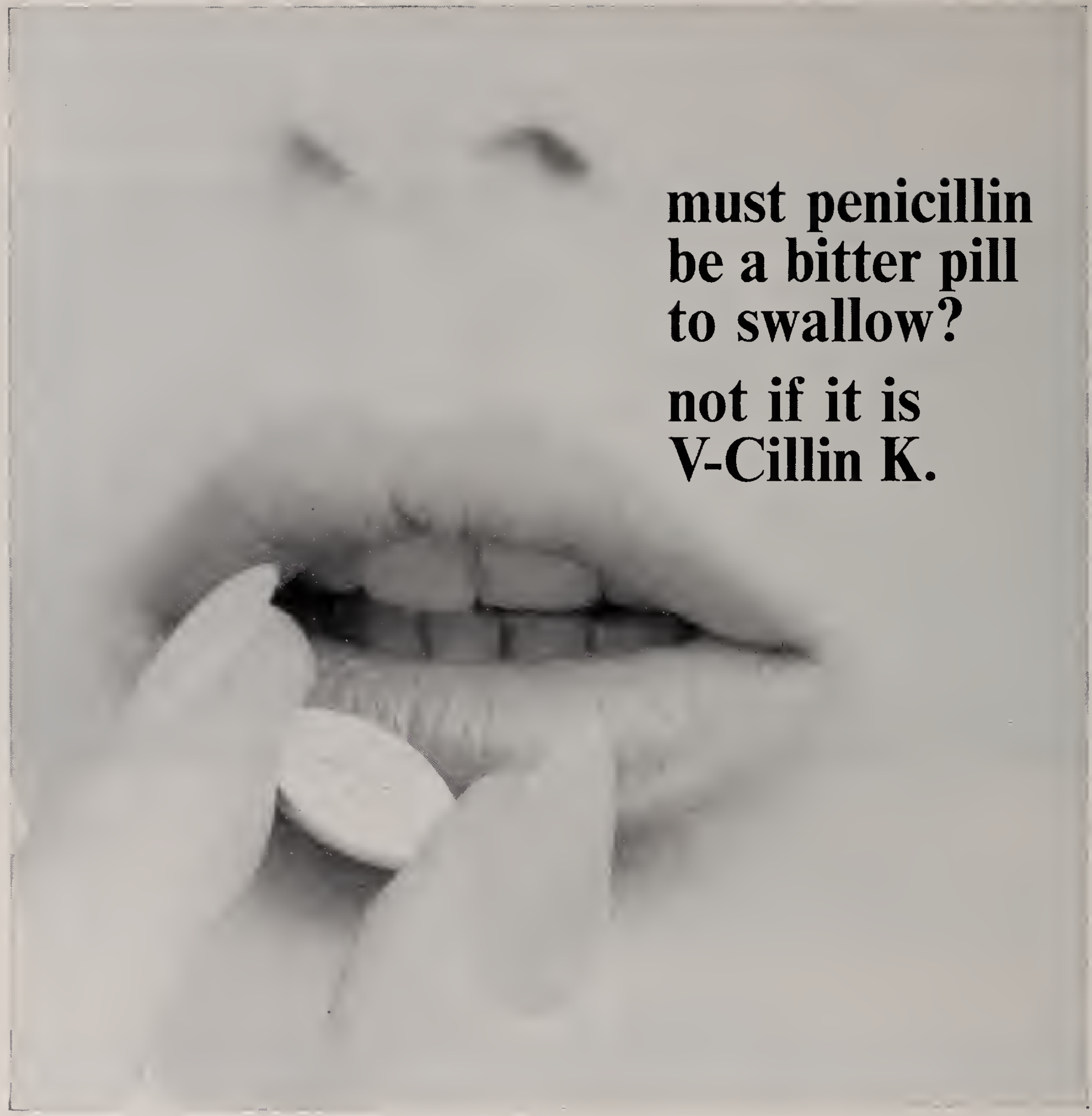

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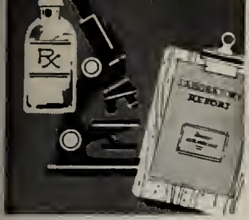

ORIGINAL PAPERS

Diabetes in Pennsylvania

Introduction

The Pennsylvania Department of Health has long been interested in the prevalence and incidence of diabetes mellitus in the commonwealth. Increasing evidence indicates that diabetes, or at least undue hyperglycemia (at this time indistinguishable from diabetes), is far more frequent than was once thought. Glucose tolerance tests have revealed the presence of diabetes in individuals without glycosuria and with normal fasting blood sugar (F.B.S.) values.

Data in the accompanying articles indicate that we should (1) concentrate on the hospital as the key link in the diagnosis of diabetes mellitus, without giving up our search for diabetes in physicians' offices and community surveys; (2) turn to good advantage the stress of illness which brings to our attention those who have diabetes mellitus or who may develop it; (3) urge all physicians and hospitals in Pennsylvania to incorporate into their minimum standards of practice a simplified one-hour glucose tolerance test, and to recheck after discharge all those with undue hyperglycemia. The F.B.S. will miss almost nine out of ten of undiagnosed instances of diabetes! *Postprandial blood sugar levels excel fasting values in detecting undue hyperglycemia, but are not as effective as is the glucose tolerance test.*

The data in these articles suggest that this will prove to be the most efficient means of identifying diabetics or the diabetes-prone. The yield—10 percent of those tested—is five to ten times more efficient than that obtained with any other method currently in use.

Charles L. Wilbar, Jr., M.D.,
Secretary of Health, Commonwealth of Pennsylvania
Clarence A. Tinsman, M.D.,
Director, Division of Chronic Diseases

Diabetes Detection in Hospitalized Patients

A simplified and effective method of detecting hyperglycemia

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The search for individuals with undue hyperglycemia as a lead to the diagnosis of diabetes mellitus is conducted with varying degrees of intensity in connection with patients' visits to physicians, with their hospitalizations, employee health services, insurance examinations, and with diabetes detection programs and the like. The latter, when carried out in communities, reveal 1-2 percent incidence of diabetes.[1-6]

Our data, based on a pilot study in a community hospital, indicate that examination of hospitalized patients by means of two glucose tolerance tests appears to be the most efficient diabetes-detection procedure used to date. Ten percent or more of individuals examined by means of a simplified in-hospital glucose tolerance test and undergoing a more complete glucose tolerance test after discharge ultimately proved to have undue hyperglycemia.

Although our finding by no means minimizes the importance of the other

• **Supported by grants from the Commonwealth of Pennsylvania (Division of Chronic Diseases), the John A. Hartford Foundation, Inc., and the U.S. Public Health Service.**

current programs of diabetes detection, it does indicate that the procedure we used should be added to the blood count determination, the urinalysis, and the serologic test for syphilis as a routine part of every hospitalization —provided, of course, that the F.B.S., urinalysis, and other indices have been negative or inconclusive.

Materials, Methods

Venous blood sugar was measured in 148 patients one hour after ingestion of 75 g. carbohydrate in a cola-type drink.* Each patient's physician determined whether or not the test should be performed. The individuals tested usually were ambulatory, and were eating well either prior to a surgical procedure or during convalescence from surgery or a medical illness.

The 148 patients represented approximately one-fifth of the total number of persons twenty years of age or older admitted to the Altoona Hospital during February, 1966. Since a specific decision to participate in the test was necessary, and since various elements such as health and nutritional states entered into the decision, the subgroup tested was not necessarily a representative sample of the entire group of admissions. The bias probably would tend, however, to exclude those who were acutely or seriously ill.

Three to four months following discharge, an attempt was made to perform glucose tolerance tests in all those in whom venous blood sugar had been 180 mg. percent or higher following administration of the cola drink.

In the initial simplified glucose tolerance, venous blood sugar was measured in the hospital laboratory by means of the Autoanalyzer technique. In the follow-up tolerance test, 1.75 g. glucose per kg. body weight were administered *per os* in water, and samples of venous blood obtained at zero, one-half, one, one-and-one-half, and two hours were analyzed in the department of medicine of the University of Pittsburgh School of Medicine for glucose by the Hagedorn-Jensen method.[7] Identical tolerance tests on healthy prisoners or nuns provided standards of reference.[8]

Each patient's hospital record was examined for variables such as thiazide or steroid therapy, caloric restriction, potassium depletion, and the like, which might affect glucose tolerance. This search was repeated in interviews during the second tolerance test.

Results

Fig. 1 indicates that at least in terms of age and sex, the group tested was largely representative of the patients admitted to the hospital during February, 1966.

Fig. 2 shows results of the simplified cola-tolerance tests in the 148 patients. Blood sugar values of 180 mg. percent or higher, one hour after ingestion of the cola, were found in 44 of the 148. Note that the fasting sugar level was between 71 and 113 mg. percent in 34 of the 44 patients—viz., in about 80 percent it was not clearly elevated.

Retests with 1.75 g. glucose per kg. body weight performed on an outpatient basis in 20 of the 44 patients 3-4 months after the cola tolerance revealed delayed disposal of the glucose load in more than 50 percent, judging from hyperglycemia in excess of 140 mg. percent at 2 hours, or both (see findings on the first 11 patients, Table I). In 4 others (L.R., W.R., E.S., and H.Z.), the 2-hour

TABLE I

Subsequent Glucose Tolerance in Patients with Blood Sugar of 180 mg.% or Higher One Hour after Ingesting 75 gm. Carbohydrate (Cola-type Drink) During Hospitalization

Pt.	Age, Sex	Body Wt. (kg.)	Diet restriction or Wt. Loss	Therapy	Discharge Diagnosis	Glucose tolerance (1.75 g./kg.)				
						Bl.S. (mg. %) at				
						0	½	1	1½	2 hr.
A.B.	50, F	60	0	Hydrodiuril	Pylorospasm	102	187	170	179	157
W.B.	62, M	68	0	0	Fract. malleolus	113	170	208	249	193
M.D.	67, F	61	0	Sedatives	Cholecystitis	100	157	179	160	149
M.F.	60, F	64	0		Cholecystitis	130	234	225	270	249
A.F.	50, F	62	0	0	Duodenal ulcer	102	149	. . .	157	183
R.G.	55, M	67.5	Bland	0	Extr. cataracts	109	174	185	179	189
J.G.	56, F	63	0	0	Nephrectomy	113	164	149	172	187
P.H.	30, F	64.5	10. lb.	Diuretic	Excis. osteoma	181	235	295	259	299
H.K.	49, M	69	1500 cal.		Stroke	110	178	236	206	170
P.L.	54, M	64	0	0	Emphysema	113	180	183	183	196
M.P.	67, F	60	0	Digitalis	Hypert. CV dis.	128	183	251	272	281
L.R.	66, M	68.5	0	Diuretic	Arthrotomy	71	150	123	140	137
W.R.	79, M	67	0	0	Urin. infection	87	118	101	119	131
E.S.	64, F	65	0	Serpasil Diuretic	Herpes zoster	106	176	174	159	133
H.Z.	65, M	64	0	Vasodilator	Myoc. infarction	77	. . .	119	102	129
J.A.	50, F	63	0	0	Hysterectomy	111	153	143	104	98
K.D.	62, M	66	0	Tranquilizer	Ca colon	102	158	108	94	83
B.H.	42, F	64	0	Probanthine	Abd. pain	98	129	172	130	117
G.P.	44, F	64	0	0	Fract. ankle	111	132	104	99	120

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* Dex-Cola analyzed in our laboratory contained 73.3 percent solids—64.4 percent glucose, the remainder presumably nonglucose carbohydrates.

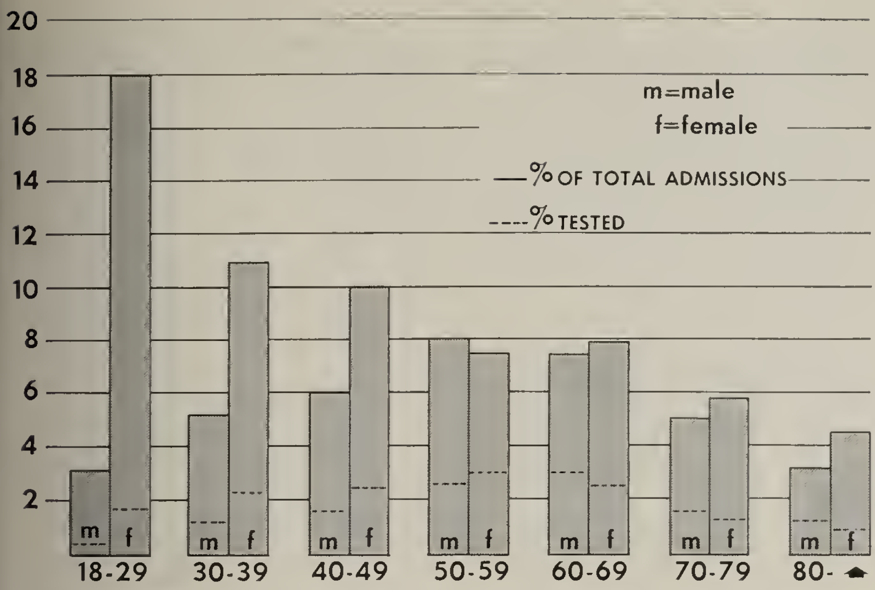

Fig. 1. Age and sex chart of patients studied in cola glucose tolerance test. (Column height below dotted line indicates percentage of each age group that was tested.) Total recorded admissions, February, 1966: 684

blood sugar values were in the indeterminate zone—129-137 mg. percent. The results of the glucose tolerance tests, and notes as to general health, nutritional status, and drug therapy, are listed in Table I. Also noted are patients who were receiving a diuretic during the days preceding the repeat tolerance test.

From Table I, it is evident that most of the delays in the disposal of the glucose load occurred in individuals fifty years of age or older.

Discussion

Our data indicate that glucose tolerance tests performed during hospitalization and—in those with one-hour glucose tolerance blood sugar levels of 180 mg. percent or greater in the simplified test—after hospitalization, might demonstrate undue hyperglycemia compatible with diabetes mellitus in one out of ten individuals tested. As with cortisone-glucose tolerance tests, the stress and strain of hospitalization, illness, surgery, convalescence, and so on appear to evoke undue hyperglycemia during a glucose tolerance test. This is an efficient lead to identifying individuals who may—and probably do—have diabetes mellitus. Those who have a normal glucose tolerance during the follow-up period must be classified as diabetes suspects or as prediabetic persons, inasmuch as they did manifest undue hyperglycemia during the stress of hospitalization.

Although this yield of hyperglycemic individuals is strikingly greater than that obtained in surveys of populations, a number of limitations in our studies must be cited: the simplified glucose tolerance test was not performed routinely on every patient, nor were the tested patients selected at random; the patient's physician decided whether or not a particular patient should be tested; certain patients were excluded because of acute or severe illness, or because of inability to take the carbohydrate drink.

For these and probably other reasons, one cannot speak of those tested as being a representative sample of the hospital population. Nonetheless, it is clear that the simple procedure we used yields a large number of individuals with undue hyperglycemia. While it is true that biased selection may have been responsible in an undetermined proportion for the high-percentage yield of abnormal glucose tolerance tests, the opposite—that those not tested would have yielded an even greater proportion of diabetes-like tolerance curves—is a possibility.

We do emphasize that the studies herein described did not include any attempt to test the usefulness and limitations of this cola-type drink in glucose tolerance studies. In other words, a carbohydrate load larger than 75 g., or based on body weight, might or might not have yielded a higher percentage of individuals with blood sugar levels of 180 mg. percent or higher. Neither have we examined the possibility that lesser degrees of hyperglycemia, 170 mg. percent, one hour after the cola drink, would identify other individuals who have diabetes or are diabetes-prone.

Despite the limitations cited, it would appear that a search for diabetes mellitus in as many hospitalized patients as feasible is warranted, on the basis of this pilot study's findings.

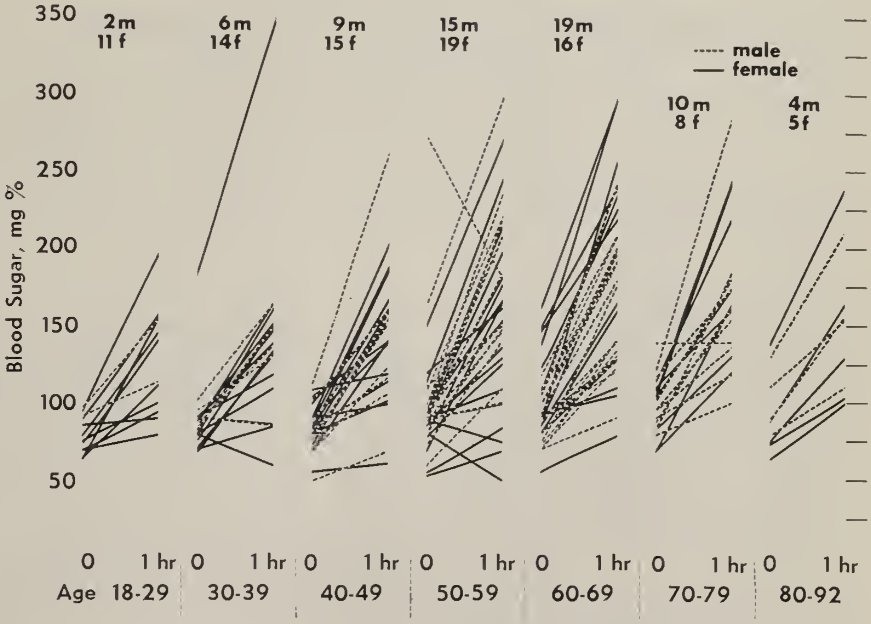

Fig. 2. Simplified glucose tolerance test in 148 hospitalized patients. Venous blood sugar levels were measured by Autoanalyzer prior to and one hour after ingestion of 75 g. carbohydrate in cola-type drink. Blood sugar level was 180 mg. percent or higher in 44 of the 148.

Glucose tolerance tests are essential for the initial identification and subsequent confirmation of undue hyperglycemia in individuals in whom the F.B.S. level is normal. Reliance on this level as an index in this series would have failed to detect limitations in ability to dispose of glucose loads in 80 percent of the patients tested with the cola drink and in about the same percentage of those tested subsequently with the more detailed glucose tolerance. In such a program, responsibility for follow-up glucose tolerance after discharge should probably be shared by the hospital and the physician, with the hospital laboratory as the prime mover.

Finally, it must be acknowledged that not all undue hyperglycemia is a manifestation of diabetes mellitus. It may indicate liver disease, myopathy, steroid excess, thiazide effect, or the like; each of these must be proved or disproved, but diabetes mellitus will be the most probable diagnosis.

Summary and Conclusions

1. In a pilot study venous blood sugar levels of 180 mg. percent higher one hour following 75 grams of carbohydrate in a cola-type drink were recorded in approximately one third of 148 healthy, ambulatory, or convalescent hospital patients.

2. A glucose tolerance test, 1.75 grams per kilogram of body weight, performed 3 to 4 months following discharge in those with 1-hour blood sugar levels of 180 mg. percent or higher in the cola-type tolerance revealed glucose intolerance in one half or more of those tested.

3. This pilot study suggests that a simplified glucose tolerance test, viz. measurement of the venous blood sugar one hour after 75 grams of carbohydrate, in hospitalized patients followed by a glucose tolerance test after discharge in those with a one hour cola-type glucose tolerance test level of 180 mg. percent or greater can be expected to reveal persistent undue hyperglycemia in more than 10 percent of hospitalized patients.

4. A search for undue hyperglycemia and diabetes mellitus by means of glucose tolerance tests when urine analyses and fasting blood sugar levels are normal should become routine in virtually all hospitalized patients.

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Delays in Diagnosing Diabetes Mellitus In Hospitalized Patients

Possibilities of earlier diagnosis are demonstrated

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It has been suggested on the basis of epidemiologic data that on the average, persons who develop diabetes in middle age probably remain undiagnosed for at least ten to twelve years.[1] Findings herein presented indicate that failure to determine the significance of glycosuria and undue hyperglycemia in hospitalized patients is one remediable factor contributing to such delays.

Materials, Methods

Fifty patients with newly-diagnosed diabetes mellitus had had one or more admissions to the same hospital within the preceding one month to ten years. The records of these previous admissions were examined for clues which would indicate or suggest the probable presence of diabetes at some time prior to the admission during which the diagnosis was made for the first time.

Results

Review of the records of the prior admissions of these 50 patients with newly-diagnosed diabetes revealed that in 15, glycosuria or fasting hyperglycemia (blood sugar levels between 114 and 194 mg. percent), had been found one or more times during prior hospitalizations (Tables I and II).

Discussion

It is highly likely that investigation of the significance of the glycosuria or hyperglycemia recorded during the prior admissions of these 15 patients would have resulted in an earlier diagnosis of diabetes.

A number of factors probably enter into the failure to pursue findings obtained during a hospital admission

• **This study was supported by grants from the state Department of Health Division of Chronic Diseases, the John A. Hartford Foundation, Inc., and the U.S. Public Health Service.**

which are suggestive of diabetes; some data are not available in the chart at the time of discharge or when the final diagnosis is entered: alternatively, the data may be seen but deemed to be without significance because the patient may have received glucose infusions or was seriously ill. Then too, it is possible that the reviewer's concepts of diabetes are those of the obvious or far advanced stages, in which marked hyperglycemia, profuse glycosuria, acetonuria, and the like are present, and hence minimal findings are discounted or a normal F.B.S. is believed to cancel out previous high values. Irrespective of these and other reasons the fact remains that in more than a quarter of a sample of 50 patients with newly diagnosed diabetes mellitus, the diagnosis might have been made months or years earlier.

In usual hospital custom, detailed reviews of the records of discharged patients are undertaken for a variety of reasons such as utilization of beds, tissue or tumor committee evaluations, necropsies, insurance reimbursements, medicolegal problems, etc. To this list one should add search for laboratory data which indicate a need for follow-up tests. Our findings suggest that this will lead to earlier diagnoses in patients who ultimately prove to have diabetes mellitus.

Summary and Conclusions

1. In approximately one quarter of 50 hospitalized patients with newly diagnosed diabetes mellitus, laboratory evidence indicative or suggestive of this disorder was present during one or more prior admissions to the same hospital.

2. The presence of occasional glycosuria or undue hyperglycemia in any hospitalized patient warrants follow-up examinations following discharge if undue delays in the diagnosis of diabetes mellitus are to be avoided.

TABLE I

Undue Glycosuria and/or Hyperglycemia During Prior Hospital Admissions of Patients Found to have Diabetes in 1964

Patients with newly-diagnosed diabetes and record of prior hospital admissions	50
Glycosuria during prior admission	10
High F.B.S. during prior admission	12
Glycosuria or high F.B.S. during prior admission	15

TABLE II

Urinalysis and Fasting Blood Sugar Levels During Prior Admissions of Patients with Newly-Diagnosed Diabetes Mellitus

Patient	Age-Sex	Glycosuria		Fasting Blood Sugar	
		Amt.	Year	Mg.%	Year
M.B.	69 F	++	1954	132	1961
		+	1958	171	1961
		++++	1961		
O. C.	46 F	0	1958	143	1958
P.H.	42 M	+++	1964	184	1964
M.McC.	61 F	0	1961	186	1956
		0	1961	110	1956
		0	1962	96	1956
		0	1962	142	1957
				140	1957
				153	1957
				127	1961
				108	1961
				92	1962
M.McK.	46 F	0	1957	157	1957
		++	1962		
J.M.	81 M	Trace	1963	106	1962
				194	1964
M.M.	80 F	0	1962	114	1962
		0	1963	114	1963
P.P.	60 F	0	1959	116	1959
L.R.	27 F	+	1963		
F.S.	59 F	Trace	1959	146	1959
M.B.	84 M	0	1958	107	1958
		0	1960	114	1960
		0	1961	135	1961
		Trace	1963	165	1963
				162	1963
M.F.	34 F	0	1961	120	1961
I.L.	40 M	0	1956	140	1956
		0	1959	116	1959
		+	1963	100	1961
		++++	1964	121	1963
				142	1964
A.L.	66 F	+	1960		
D.S.	18 mo. M	++	1964		
		++++	1964		

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• *In the University of Pittsburgh School of Medicine, Dr. Danowski is professor of medicine, and Drs. Cohn, Narduzzi, Grimes, and Limaye are Fellows in endocrinology and metabolism.*

Diabetes Mellitus in Two Pennsylvania Communities and Their Hospitals

A striking difference in prevalence of Diabetes and in fasting blood sugar levels of selected hospital patients

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Information entered on death certificates suggests considerable variation in the prevalence of diabetes mellitus in Pennsylvania's 67 counties. The diabetes rates in these counties for the years 1958-62 ranged from 13.3 to 48.6 per 100,000 of population.[1] Our studies were undertaken to establish whether or not the diabetes rates in two counties—one with a high and the other with a low rate—are reflected in the statistics of hospitals in those counties.

The data reveal that there is a striking difference in the frequency of diagnosis of diabetes mellitus in these two hospitals. These differences, based on a high frequency of diagnosis of diabetes in one hospital and a low one in another, correlate very closely with a high and a low diabetes rate recorded in death certificates from the two counties. These differences cannot be attributed to the customs of the individual hospitals with respect to the search for diabetes.

Materials, Methods

A segment of the 1958-62 records of the hospital populations of two Pennsylvania counties, one with a high rate (Blair: 48.6/100,000) and the other with a low rate (Indiana: 13.3/100,000) has been examined. The segment consisted of individuals from each of these counties admitted to one hospital in each county during 1964, with diabetes as a primary or secondary discharge diagnosis.

The records of Altoona Hospital, Blair County (Hospital A—13,625 admissions in 1964) and of Indiana Hospital, Indiana County (Hospital B—7,639 admissions in 1964), were searched for diabetes mellitus. Such records were then examined for the following: (1) symptoms and signs of diabetes; (2) F.B.S. levels; (3) blood sugar levels other than fasting ("random"); (4) glucose tolerance tests; (5) urinalyses for sugar; (6) urinalyses for acetone; and (7) ketoacidosis.

Results

Findings in the two institutions are summarized in Tables I and II and in Fig. 1.

A. *Age and sex of the hospital populations:* Hospitals A and B admitted 13,625 and 7,639 patients, respectively, during the 1964 calendar year (Table 1). Approximately equal number of physicians (51 and 52), were on the medical staffs of the two institutions. The two hospital populations were similar with respect to age and sex, although more children were admitted to Hospital A, while the seventy to seventy-nine-year-old group

TABLE I

Characteristics of Two Counties and the Hospital Populations, Exclusive of Age and Sex

	Hospital A	Hospital B
County population (1963 est.)	140,560	74,906
Diabetes death rate/100,000 (1958-62)	48.6	13.3
Admissions, (1964)	13,625	7,639
No. different patients admitted (1964)	12,071	Unknown
Total diabetes diagnoses	395	121
In 1964	87	17
Prior to 1964	308	104
Total diabetes diagnoses/1,000 admissions (1964)	34.5	8.8
New diabetes diagnoses/1,000 admissions (1964)	6.4	2.2

• *In the University of Pittsburgh School of Medicine, Dr. Danowski is professor of medicine and Mr. Sunder is associated with the Addision H. Gibson Laboratory. Drs. Taylor and Wingert are associated with the Altoona Hospital in Altoona; Dr. Long with the Indiana Hospital in Indiana, and Dr. Tinsman is director of the Division of Chronic Diseases of the State Department of Health.*

• This study was supported by grants from the state health department's Division of Chronic Diseases, the John A. Hartford Foundation, Inc., and the U.S. Public Health Service.

was proportionately larger in Hospital B (Fig. 1).

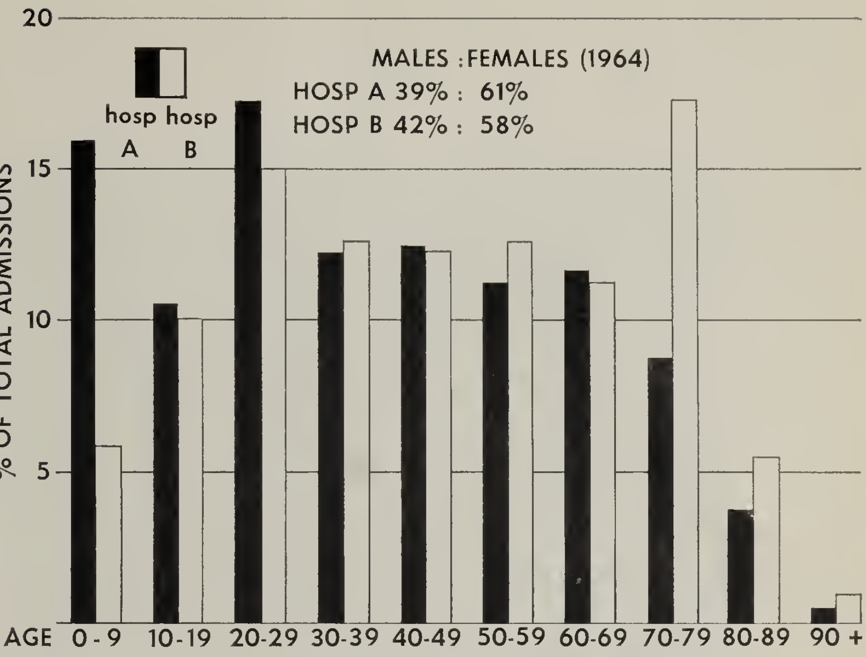

Fig. 1. Age groups represented in Hospital A and Hospital B admissions, 1964.

B. *Frequency of diagnosis of diabetes in each of the two hospitals:* During 1964, a diagnosis of diabetes mellitus was made in 395 patients in Hospital A, and in 121 in Hospital B. Newly discovered diabetes accounted for 87 and 17 of the total number of diagnoses of diabetes mellitus in these two hospitals, respectively—i.e., per 1,000 patients admitted, diabetes was diagnosed 3.9 times more frequently in A than in B. Also, newly discovered diabetes was identified almost 3 times more often in A as in B (Table 1).

C. *Criteria for diagnoses of diabetes in the two institutions:* On the average, one urinalysis for sugar and one measurement of the venous blood sugar level were obtained during each admission. (Table II). Estimates from Hospital A indicate that approximately two-thirds of the blood sugar measurements were obtained with the patient in the fasting state; the remainder represented sampling at other times during the day. In Hospital B, virtually all of the blood sugar measurements were fasting values.

The two institutions also differed in the frequency with which oral glucose tolerance tests were performed—174 in A, 13 in B.

Review of the individual patient records indicated that in both institutions the bulk of the new diagnoses of diabetes (81 percent in A, 100 percent in B) were based on F.B.S. levels. In A, random blood sugar measurements as the sole index accounted for another 14 percent of the diagnoses and glucose tolerance tests as the sole index led to the identification of the remaining 5 percent. In B, random blood sugars (as indicated), were not obtained, and the limited number of glucose tolerance tests did not identify any additional diabetic patients (Table II).

Discussion

County A diabetes rate on death certificates (48.6/100,000), and the County B rate (13.3), represented a 3.7-fold difference. The 1964 admission rate of patients with diabetes mellitus, previously and newly diagnosed, was 34.5/1,000 in A and 8.8/1,000 in B, a 3.9-fold difference. A similar difference, approximately threefold, was recorded in the rates at which diabetes was newly diagnosed in the two institutions.

Also reviewed were customs of the two institutions with regard to laboratory or other search for diabetes which could account for the disparate rates. Survey of the experiences of the two hospitals for 1964 revealed that each had performed, per patient, approximately one urinalysis for sugar and one determination of the venous blood sugar. In A, approximately one-third of the blood sugar measurements were obtained at "random" and hence at various times after meals; this was not done in B. However, such random blood sugar measurements served to identify only a few patients in A, hence these measurements cannot account for the unequal rates in the two institutions.

Similarly, more glucose tolerance tests were performed in A than in B but these too added only a few patients to the group already identified by means of an elevated F.B.S. Hence it would appear that the important common denominator in the identification of diabetes in the two institutions was the F.B.S. level. Assuming that the hospital admissions reflect in some as-yet-undetermined ratio the prevalence of diabetes in a community, the records of these two institutions appear to reflect the diabetes death rates in their respective counties.

Of course, agreement between the rates at which patients with diabetes are admitted to hospitals and the diabetes rates obtained from death certificates from the respective counties is not surprising, since most deaths occur in hospitals, and diagnoses in patient charts appear on death certificates. This disparity between the

TABLE II

Laboratory Indices in Diabetes Diagnoses in the Two Hospitals

	Hospital A	Hospital B
Total blood sugars performed (1964)	13,327*	6,260*
Total urinalyses performed (1964)	13,276	8,664
Total No. of Glucose Tolerance Tests Performed in 1964.	174	13
Diagnoses from fasting blood sugar	81%	100%
Diagnoses from random blood sugar	14%	0%
Diagnoses from oral glucose tolerance test	5%	0%

* In Hospital A, it was estimated that two-thirds represented F.B.S. values; the rest were obtained at random. In Hospital B, all blood sugar measurements were fasting values.

experiences of two separate institutions in two separate counties thus needs additional study.

Does an actual difference exist in the prevalence of diabetes in the two counties? The answer will require a further diabetes survey of the population of the two communities. Our data suggest that there is a fourfold difference in the prevalence of diabetes in these two communities, just as there is in the death reports from the two counties in which the communities are located.

In all probability the data on the actual prevalence of diabetes in these two institutions and counties is higher than those obtained from death certificates or from diagnoses based largely or entirely on measurements of glucose levels of venous blood, obtained after an overnight fast. This surmise is based on the knowledge that the latter criterion will fail to identify the majority of patients with milder diabetes [2] and on the demonstration in the report which follows[3] that glucose tolerance tests can be up to ten times as efficient as fasting blood samples in identifying undue hyperglycemia.

Summary and Conclusions

1. Survey of the frequency of diagnoses of diabetes mellitus in samples of the hospital population of two counties in Pennsylvania, one with a high and the other with a low diabetes rate obtained from death certificates, revealed that similar differences were present in the frequency of diagnosis of diabetes in the two institutions.

2. In both institutions an increase in the level of sugar in samples of venous blood obtained in the fasting state was the usual criterion for the presence of diabetes. Though random nonfasting blood sugar measurements and occasional glucose tolerance tests were performed more often in the hospital with the higher rates, these practices do not account for the differences in the two hospitals.

3. It is suggested that the actual prevalence of diabetes mellitus in the hospital populations tested and in the two counties is probably higher than the estimates based on death certificates or on samples of blood observed during the fasting state, since milder stages of diabetes can only be diagnosed by means of a glucose or food tolerance test.

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Diabetes Screening In Pennsylvania

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During the fiscal year 1965 (July 1, 1964-June 30, 1965) 923 previously undiagnosed diabetics were discovered among 3,026 persons referred to their family physicians by the Pennsylvania Department of Health. These 3,026 diabetic suspects were found in 100,143 persons tested in 98 separate diabetes screening programs throughout Pennsylvania sponsored and financially supported by the Department of Health. Many were cosponsored by volunteer health organizations, industry, the Pennsylvania Grange, and in one instance, by the woman's auxiliary of a county medical society.

These 3,026 had a blood sugar level in excess of 130 mg. percent. Since the health department program is a screening program, these persons were referred to their physicians for diagnosis and whatever treatment might be prescribed. As a result, 923 previously undiagnosed diabetics were uncovered; 561 additional persons were reported by their physicians as "previously known diabetics." While it is not the policy of the health department to perform blood sugar tests on known diabetics, some always manage to be screened either to "get a free blood-sugar" or because they weren't aware of their diagnosis. This accounts for the 561 previously known diabetics.

• In the Pennsylvania Department of Health, Dr. Millington is director of the Bureau of Special Health Services, and Dr. Tinsman is director of the Division of Chronic Diseases.

This period marks the first time that testing was done by means of a reagent strip,* a firm cellulose strip impregnated with glucose-oxidase. It is our practice to prick the finger and use a drop of capillary blood. After exactly one minute the blood is washed from the strip with water and the resultant color is matched with the reference colors. If the reading is above a predetermined level selected by the local medical society (almost always 130 mg. percent), venous blood is drawn in a fluoridated vacuum tube and the specimen is sent to the state laboratory in Philadelphia for quantitative determination by the Autoanalyzer. If this determination is above 130 mg. percent, the physician designated by the screenee on his registration card is notified of the exact reading, the screenee is notified that his blood sugar level was above normal at the time of the test and it is suggested that he visit the physician whom he previously designated.

The reagent strip measured capillary or arterial blood, whereas the specimen sent to the laboratory for quantitative determination was venous, hence there are fewer readings above 130 mg. percent reported by the Autoanalyzer. We believe that the strip is sufficiently accurate, especially in the 90-150 mg. percent range, to be used for screening. We find the correlation between the strip and the Autoanalyzer is greater as the technicians gain experience. Daylight, incandescent light, and fluorescent light also tend to influence color matching; we have procured a standardized fluorescent light for color matching which, together with stopwatch timing and experience, will undoubtedly contribute to more accurate determinations.

The cost per test performed was 62.6 cents. The cost per new case found was $66.83. In 1960 when large scale testing was first attempted and the clinitron was used, the cost per test was 86.4 cents and the cost per new case uncovered was $117. Some of this cost reduction can undoubtedly be contributed to the increased volume, but most of the saving, we feel, is due to the use of the reagent strip as opposed to the clinitron.

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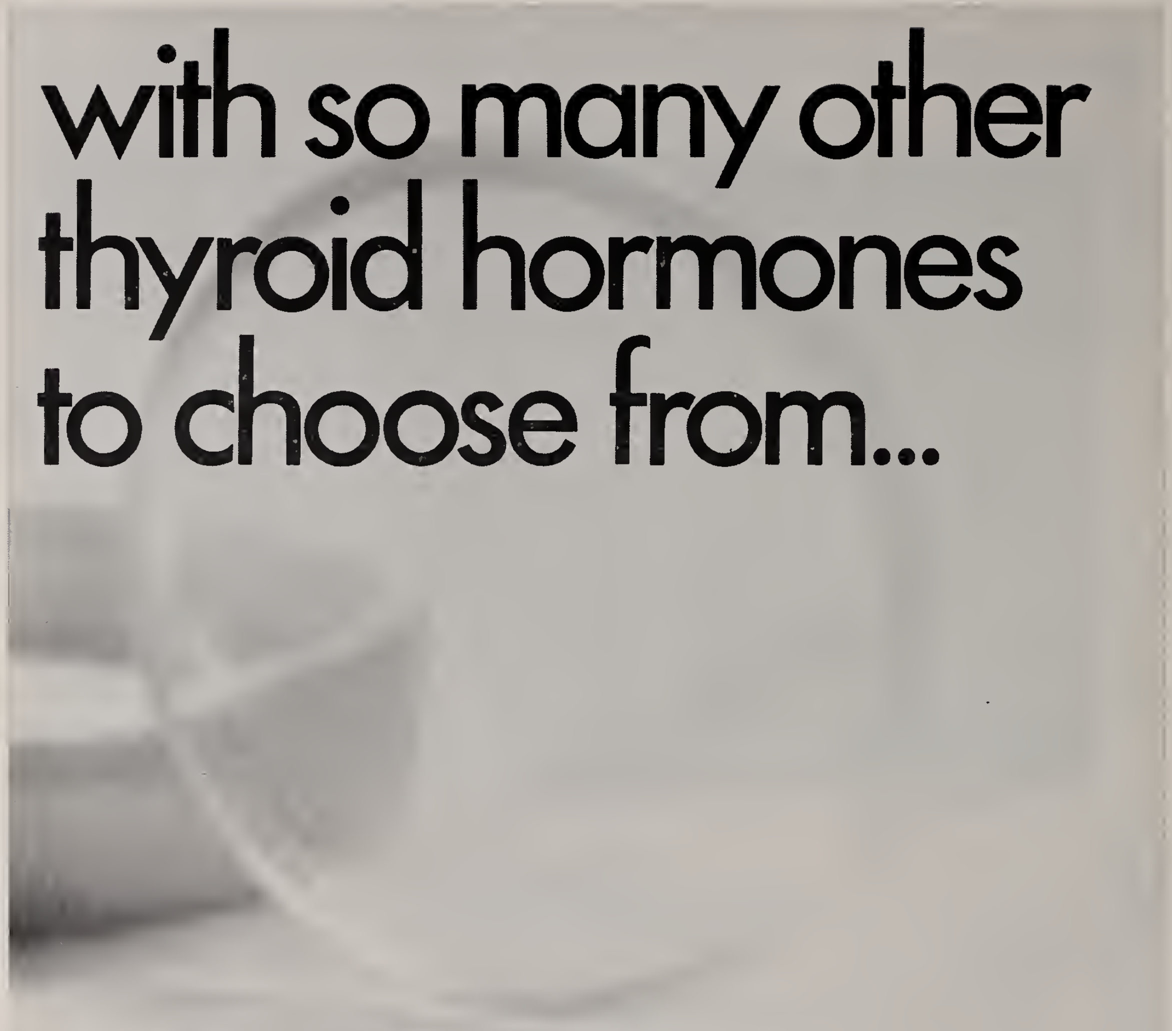
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Toxoplasmosis Antibody

A study conducted in Southwestern Pennsylvania, revealing the incidence of antibody in that area's 'normal' population

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Over the past fifteen years, toxoplasmosis has become a disease entity of increasing interest to many general medical and subspecialty groups. Not only has the pathologist noted its protean manifestations at autopsy, but the ophthalmologist has noted its importance as an etiologic entity in the production of retinochoroiditis, both congenital and acquired.

The general practitioner, the pediatrician, and the internist must consider toxoplasmosis when confronted with lymphadenopathies, pneumonitis, myocarditis, polymyositis, hepatosplenomegaly, encephalitis, and/or exanthemata. The pediatrician and the pediatric neurologist consider it in the differential diagnosis of meningocephalitis, microcephaly, mental retardation, seizures, and/or congenital deafness. The obstetrician must be aware of this disease in cases of repeated abortion, in fetal complications, and in antenatal influenzal illnesses in the mother. The radiologist views the intracerebral calcifications as well as the other organ system envolvements mentioned above.[1]

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The Toxoplasma gondii organisms are parasites found throughout the world in man and in domestic and wild animals. The antibody is especially prevalent in the tropics and almost totally absent in the arctic regions. There is a variable incidence of the antibody in the temperate climates; this incidence may vary from one locality to another at one latitude.[1, 3]

With the widespread medical interest in this disease, it is important, in evaluating single cases, to determine just how prevalent the infection is in the "normal" population in which each physician practices. This study was undertaken to determine the incidence or "background" level of antibody in the "normal" population of the Southwestern Pennsylvania-Pittsburgh area.

Of the several diagnostic tests for toxoplasmosis, only two are readily available commercially—the toxoplasmin skin test and the Sabin-Feldman methylene blue dye test. This survey was conducted with these two tests, both of which are presumptive of infection, no organisms being positively identified by their use.

The skin test, originally described by Frenkel in 1948, is a delayed skin reaction.[4] The antigen is prepared from the peritoneal exudate of Toxoplasma gondii-infected mice. The exudate is concentrated and the organisms in the concentrate are inactivated by repeated freeze-thaw cycles. A final 1:100 dilution in isotonic saline and 0.25 percent phenol represents the test antigen.[5]

The control consists of normal ground mouse-spleen. This material is subjected to the same freeze-thaw cycles as the test antigen, and a final 1:100 dilution in saline and 0.25 percent phenol becomes the control antigen.[5] The control test is of value only in the patient who is allergic to the medium in which the Toxoplasma are grown.[6]

A positive test indicates an infection at least three months to two years prior to testing, with the average patient becoming positive four to twelve months after the original infection.[6] The skin test remains positive for long periods, but may revert to negative many years after the original infection, even in the face of a positive dye-test. A negative skin-test, therefore, occurs in the acute phases and in the very late phases of the disease.[1, 6]

The degree of skin reaction indicating a positive reaction has been the subject of much discussion. A 5 mm. area of erythema and induration has been reported as an adequate minimum reaction for a positive response.[7]

There are drawbacks to the skin test: because there are no adequate means of standardization of the test material from one manufacturer to another, or from one batch to another by the same manufacturer, [2, 6, 7]widely variable reactions are possible in the same patient by varying the amount of antigen in the test dose; the response to the antigen may also vary when it is injected into different skin locations in the same individual.[6]

The Sabin-Feldman methylene blue dye test, first described in 1948,[8] is sensitive and specific for Toxoplasma infestations and is reproduceable in the same individual. The titer tends to fluctuate slightly in the same serum sample when the sample is processed with different batches of antigen. A fourfold variation in titer levels is considered significant.[2] This test becomes positive one to four weeks following inoculation of the organisms, and remains positive for many years—if not throughout life. The titer may be very high in the early stages but falls to very low levels with increasing age.[2] Significant titer levels have until recently been considered to be

TABLE I

Number of Subjects Positive at Increasing Titer Levels

Age (Yrs.)	Total Pts.	Neg. (—1:4)	Titer Levels 1:4	1:16	1:64	1:256	1:1028	% Pos.
0- 5	27	22	3	1	..	..	1	19%
6-10	26	15	4	2	5	..	..	42%
11-20	72	65	2	4	1	..	..	10%
21-30	77	49	12	11	4	1	..	36%
31-40	94	66	10	13	5	..	..	30%
41-50	103	58	17	24	4	..	..	43%
51-60	120	67	24	26	3	..	..	44%
61-70	98	53	19	21	4	..	1	46%
71-80	49	24	11	11	3	..	..	51%
81-90	14	6	4	4	..	..	..	57%
TOTALS	680	425	106	117	29	1	2	38%

1:16 or higher as indicative of a past infection, and 1:64 or higher indicating an acute infection. Since the completion of this study, a case of proven ocular toxoplasmosis has been reported with dye tests positive only in undiluted sera, a new level of significance.[9]

The dye test used in this survey is based on the principle that the Toxoplasma organisms will not stain with alkaline methylene blue dye when they have been treated by accessory factor and by an infected patient's antiserum. The untreated parasites will accept this stain. The titer is determined by counting, under the microscope, the number of unstained organisms in various serum dilutions; a positive is considered when 50 percent or more of the Toxoplasma organisms remain unstained. One major disadvantage of the test is that live organisms are used in its performance and a colony of test organisms must be maintained by serial passages in mice.[8]

Method

Two surveys were conducted. In the first group, the materials consisted of the consecutive serum samples of 513 patients who were in the inpatient or outpatient departments of the Presbyterian-University Hospital, Children's Hospital, and the Eye and Ear Hospital of Pittsburgh. The original blood sample was drawn for tests other than a toxoplasmosis methylene blue dye test.

The second group was composed of 167 consecutive inpatients of the Eye and Ear Hospital, admitted for a variety of reasons; but no patient was tested in whom the diagnosis of uveitis, either past or present, was entertained. In this series, the subjects were both dye-tested and skin-tested.

Blood for the methylene blue dye test determination was first drawn from the anticubital vein. After suitable skin preparation with a 70 percent alcohol solution, 0.1 cc. of toxoplasmin antigen was injected intradermally into the right inner forearm. A similar volume of mouse spleen control antigen was injected into the skin of the left inner forearm. Separate disposable needles and syringes were used for each skin test. The skin test antigens were supplied through the courtesy of Charles N. Christensen, M.D., of the Eli Lilly Research Laboratories, Indianapolis.

The skin tests were read by the same observer 48 hours after injection; a positive test was considered to be an area of erythema and/or induration of 5 mm. or more.

The Sabin-Feldman dye tests were performed in the University of Pittsburgh Health Center Laboratories. The lowest dilution tested was 1:4.

Results

The results of the dye test survey according to the titer level on the combined 680 normal subjects are summarized in Table I; 255 subjects had a positive titer of 1:4 or greater. However, all but three of these had 1:64 titer levels or less. One subject was in the 1:256 titer level and two subjects were in the 1:1024 titer level. None was considered ill of toxoplasmosis.

The percentages of positive dye tests according to age groups are summarized in the right-hand column of Table I. The birth through five-year age group was 19 percent dye test positive and the six-ten year group rose to 42 percent, for a combined first decade rate of 30 percent positive titers. In the second decade group, there was a 10 percent decline, but the level increased to 36 percent in the third decade. In each succeeding decade about half (44-57 percent) of the subjects were dye-test positive at the 1:4 titer level or greater. The average was 38 percent positive titers in the 680 subjects.

In the second group of 167 subjects, the percentage of skin test positives in each age group roughly paralleled the percentages of positive dye tests, (Table II). Of this group, 57 subjects (34 percent) had positive skin tests. None of the skin test controls was positive.

Negative skin tests and dye tests in this group of 167 subjects occurred in 71 subjects (43 percent). Positive skin tests and dye tests occurred in 50 subjects (30 percent). This positive

TABLE II

Results of Skin Tests in 167 Subjects

Age (Yrs.)	No. Subjects	No. Pos. Skin Tests	% Pos.
0-10	0	0	0%
11-20	15	3	20%
21-30	24	7	29%
31-40	19	5	26%
41-50	29	8	28%
51-60	25	10	40%
61-70	32	15	47%
71-80	19	7	37%
81-90	4	2	50%
TOTALS	167	57	34%

correlation between skin and dye tests accounted for 73 percent of the tested subjects. Positive dye tests and negative skin tests occurred in 39 subjects (23 percent) and positive skin tests and negative dye tests occurred in 7 subjects (4 percent). The latter two groups occurred at random in all age brackets.

Discussion

This study demonstrates that about one-third (30 percent) of the population sampled in the Southwestern Pennsylvania-Pittsburgh population had become dye test positive in the first decade of life. About half the tested population had become positive by the fifth decade.

When the number of skin and dye test positives are compared, there are some obvious discrepancies. If the skin test had been used alone to survey this population, 23 percent of the subjects with positive dye tests would have been missed. An additional 4 percent would have had a "false positive" reading from the skin test alone. These discrepancies might be accounted for by the vagaries of the toxoplasmin antigen, or by the fact that the subjects were tested on only one occasion. Since many of the subjects were older people, it is possible that the skin test had reverted to negative before the dye test titer had fallen below detectable levels.

The skin test is useful only as a screening test and is meaningful only when it is positive, which status indicates an infection in the remote past. When the skin test is negative, it should be repeated, and the Sabin-Feldman dye test should be performed.

This dye test survey was compared with a similar survey of the Pittsburgh area reported in 1952 by Feldman[10] and in 1956 by Feldman and Miller.[3] The lowest titer level reported in this group was 1:16 (Table III). The average was 35 percent positive in the earlier group, compared with 22 percent positive in the present study at the same titer level.

TABLE III

Results of Dye Test Titers in 680 Normal Subjects at 1:16 Titer Level (1964), Compared with Feldman and Miller Series (1952).

	Current Study			Feldman & Miller		
Age (Yrs.)	No. Subjects	No. Pos. at 1:16 Titer	% Pos.	No. Subjects	No. Pos. at 1:16 Titer	% Pos.
0- 5	27	2	7%	20	1	5%
6-10	26	7	27%	20	2	10%
11-20	72	5	7%	23	7	30%
21-30	77	16	21%	21	5	24%
31-40	94	18	19%	20	9	45%
41-50	103	27	26%	19	13	68%
51-60	120	29	24%	21	14	67%
61-70	98	26	27%	..	..	....
71-80	49	14	29%	..	..	....
81-90	14	4	29%	..	..	....
TOTALS	680	148	22%	144	51	35%

Conclusions

1. Of 680 randomly-selected "normal" subjects in the Southwestern Pennsylvania area, 38 percent were Sabin-Feldman methylene blue dye test positive to toxoplasmosis antibody, with a titer level of 1:4 or greater.

2. A toxoplasmin skin test screen of 167 of the 680 subjects revealed that the average number of positive skin test reactors was 34 percent. However, 23 percent of those tested had positive dye tests and negative skin tests and 4 percent had positive skin tests and negative dye tests. It is suggested that the skin test be used only as a screening test and that it is meaningful only if positive.

3. A comparison between the present dye test series and one performed twelve years previously revealed a somewhat lower percentage of positive serologies (22 percent vs. 34 percent) at the 1:16 titer level.

Acknowledgements

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Practice Tip

Time spent in a physician's waiting room can be positively tramautic, if the decor is drab or downright gruesome. Conversely, cheerful colors and mood-elevating appurtenances can do much to improve a patient's emotional tone, and may have a definite bearing on his physical and/or mental condition.

Works of art to adorn the walls should be chosen with these rules in mind: consider contemporary (preferably regional) art, but strictly avoid the macabre; (2) shun anything reminiscent of illness or death; and (3) choose bright colors and pleasing forms, avoiding dark, somber, or blood colors and intricate or "tortured" forms.

Unless a physician is unusually knowledgeable in color choices and other decorating decisions, he would do best to hire an interior decorator to style or restyle his waiting room, and to evaluate the possibilities of other units in the professional spite.

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Dosage: For correct therapeutic effect—Rx correct therapeutic dosage. The recommended initial daily dosages, given in divided doses, until diarrhea is controlled, are:

Children: Age	Total Daily Lomotil Dosage	Lomotil Liquid Dosage (Each teaspoonful [4 cc.] contains 2 mg. of diphenoxylate HCl)
3-6 months	3 mg.	½ tsp. 3 times daily
6-12 months	4 mg.	½ tsp. 4 times daily
1-2 years	5 mg.	½ tsp. 5 times daily
2-5 years	6 mg.	1 tsp. 3 times daily
5-8 years	8 mg.	1 tsp. 4 times daily
8-12 years	10 mg.	1 tsp. 5 times daily

Adults: 20 mg. (2 tsp. 5 times daily or 2 tablets 4 times daily) Based on 4 cc. per teaspoonful. Maintenance dosage may be as low as one-fourth the initial daily dose.

Precautions: Lomotil, brand of diphenoxylate hydrochloride with atropine sulfate, is a Federally exempt narcotic preparation of very low addictive potential. Recommended dosages should not be exceeded. Lomotil should be kept out of reach of children since accidental overdosage may cause severe respiratory depression. Lomotil should be used with caution in patients with impaired liver function and in patients taking addicting drugs or barbiturates. The subtherapeutic amount of atropine is added to discourage deliberate overdosage.

Side Effects: Side effects are relatively uncommon but among those reported are gastrointestinal irritation, sedation, dizziness, cutaneous manifestations, restlessness, insomnia, numbness of extremities, headache, blurring of vision, swelling of the gums, euphoria, depression and general malaise.

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Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness.

Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.

Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculapapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

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Clinical Experiences with a Potent New Corticosteroid Ester for Dermatoses

Report describing a preliminary clinical study of Bethamethasone, a new, active topical corticosteroid

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The advantages of topical corticosteroid therapy of dermatoses have been listed by Scholtz and Nelson:[1] "(1) the drug is applied only to the tissues to be treated; (2) the patient is not exposed to the hazards and complications of systemic corticosteroid therapy; (3) in certain chronic lesions, results can be achieved with topical therapy not possible with systemic safe use of corticosteroid. It is therefore desirable to use corticosteroids topically rather than systemically whenever possible."

The topical corticosteroids available up to now have offered the first of these advantages but have not consistently and predictably offered the other two. They have not eliminated the need for concomitant systemic corticosteroid therapy, and in treatment of chronic lesions, they have not uniformly achieved results comparable to those obtained with systemic therapy. Now, however, the latest topical agent to be synthesized—the valerate ester of betamethasone—shows promise of providing all three advantages. Moreover, the valerate—a five-carbon chain at the 17 position of the betamethasone molecule (Fig. 1)—is, on the basis of comparative vasoconstriction bioassays, the most active topical corticosteroid developed to date.[2, 3]

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This report describes a preliminary clinical study of this new ester of betamethasone in the treatment of dermatoses frequently encountered in dermatologic as well as general practice.

Betamethasone 17-valerate, in a 0.1 percent concentration in a hydrophilic ointment base of petrolatum and hydrogenated lanolin, was administered to 105 outpatients (67 males, 38 females) in the dermatology department of Jefferson Medical College Hospital. Nearly all were adults; only 11 patients were under twenty years of age. Over half the group (56) had psoriasis. Three-fourths of the patients had a chronic disease that had persisted for more than a year.

All patients, after being instructed in the use of the medication, applied the ointment at home, most of them (52) three times a day, but 42 only twice a day and 11 only once a day. Only four patients used occlusive dressings in addition to the ointment. The majority of patients (60) were treated for three weeks or longer, but 39 needed only two weeks' treatment, and six patients had such rapid and thorough clearing of lesions that treatment was terminated after one week.

A patient's response was termed "excellent" if he showed complete or nearly complete healing within a few weeks. Lesser degrees of improvement within the same period were rated "good" or "fair," according to the degrees of objective improvement and symptomatic control. Responses were rated "poor" when the patient showed only very slight improvement, or if he failed to improve, or became worse.

Results by diagnosis are presented in Table 1. Overall results were as follows: 81, excellent, 12, good, 5, fair, and 7, poor. Thus, an excellent response was achieved in 77 percent of 105 patients, of whom 79 had chronic, resistant diseases, and 101 were treated without occlusive dressings.

Noteworthy are the results (10 excellent, 1 good) attained in 11 patients with atopic dermatitis, all treated without occlusive dressings. Because it does not require supplementary occlusion, betamethasone 17-valerate 0.1 percent ointment is useful in the treatment of this disease, for, as Scholtz and Nelson[1] have pointed out: "Atopic dermatitis generally is not suitable for occlusive therapy because of the sweat retention factor."

The ointment was well accepted and well tolerated by all patients, even in hairy regions and even by the seven who failed to improve. No adverse reactions were observed in this study.

The following case histories indicate the promise this new agent holds toward providing the three advantages of topical corticosteroid therapy listed at the beginning of this article: (1) local application, (2) elimination of need for concomitant systemic therapy, and (3) achievement of satisfactory results in chronic dermatoses by topical therapy alone.

Case Reports

A sixty-three-year-old female had had palmar psoriasis for eight years which had not responded to any local therapy except intralesional administration of triamcinolone diacetate suspension. On October 12, 1965, one palm was treated with betamethasone 17-valerate 0.1 percent ointment applied without occlusion three times a day, the other palm intralesionally with triamcinolone diacetate suspension. The side injected with triamcinolone cleared in 10 days while the side treated with betamethasone 17-valerate showed 80 percent clearing in 14 days. The associated itching and burning sensations abated with use of both agents. This is the first time that a topical agent had, achieved in this patient results comparable to those obtained with intralesional injections.

A fifty-nine-year-old male had had an itching, eczematous eruption of all four extremities for several successive winters. This nummular eczema had responded only to systemic administration of corticosteroids. On December 3, 1965, treatment was begun with betamethasone 17-valerate 0.1 percent ointment applied three times a day with occlusion. One week later, marked improvement was evident. On December 20, 1965, treatment was terminated because the lesions had cleared almost completely.

A forty-eight-year-old male had had a persistent eczematous eruption of the face, arms, and upper chest for two years. Intermittent treatment for months at a time with three to four corticosteroid tablets daily would result in temporary clearing. Many local preparations were tried also, but all were ineffective. On October 18, 1965, treatment was begun with betamethasone 17-valerate 0.1 percent ointment applied three times a day without occlusion, the patient concurrently taking three corticosteroid tablets per day. One week later, the patient showed such improvement that the dosage of systemic corticosteroid was reduced to one tablet per day. On November 1, 1965, the systemic corticosteroid dosage was reduced to one-half tablet per day because the lesions were 80 percent improved. On November 8, 1965, three weeks after it had been started, treatment was terminated because the patient's lesions had cleared almost completely, despite the reduction in oral corticosteroid dosage.

A forty-two-year-old male with his third episode of nummular eczema of the hands, back, and legs in the past five years complained that his hands were so bad he could hardly work. Topical corticosteroids and systemic antibiotics and antihistamines had been used previously, with no appreciable change in his condition. On January 25, 1966, treatment was begun with betamethasone 17-valerate 0.1 percent ointment administered three times a day without occlusion. One week later, on February 1, 1966, the lesions were 90 percent cleared. Treatment was terminated on February 8, 1966, because of the remarkable effect attained in this severe case.

A fifty-four-year-old male had psoriasis of the hands and elbows that had persisted for six years. Local administration of corticosteroids and tars had produced only slight improvement. Treatment with betamethasone 17-valerate 0.1 percent ointment, administered three times a day without occlusion, was begun on January 28, 1966. Treatment was terminated three weeks later (February 18, 1966), because the lesions were 80 percent cleared. Betamethasone 17-valerate is the first topical corticosteroid to produce an appreciable effect in this patient.

TABLE I

Results of Therapy with Betamethasone 17-Valerate

Diagnoses	No. Pts.	Excellent	Good	Fair	Poor
Psoriasis	56	42	9	4	1
Eczema	18	15	1	1	1
Atopic dermatitis	11	10	1	0	0
Seborrheic dermatitis	6	6	0	0	0
Nummular eczema	5	4	0	0	1
Alopecia	2	0	0	0	2
Lichen planus	2	0	0	0	2
Others	5	4	1	0	0
TOTALS	105	81	12	5	7

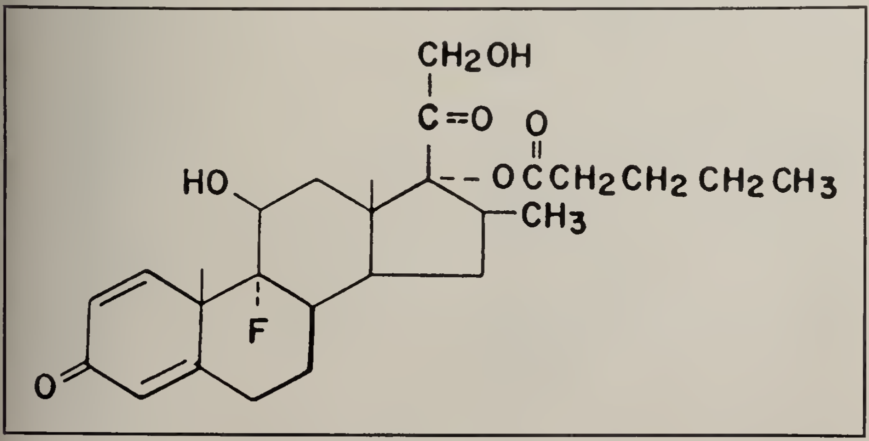

Fig. 1. Betamethasone 17-valerate.

Summary

A group of 105 patients with skin disease—56 of them psoriatics—was treated with a new ester of betamethasone—the 17-valerate—in a 0.1% concentration in an ointment base. Only 4 patients used occlusive dressings in addition to the ointment. The results (81 excellent, 12 good, 5 fair, and 7 poor) indicate that this new agent appears to come closest to providing the three advantages of topical corticosteroid therapy: (1) It is applied only to the affected tissues; (2) by usually eliminating the need for concomitant systemic therapy it spares the patient the hazards and complications involved therein; and (3) it achieves results in chronic dermatoses not hitherto possible by topical therapy alone.

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A New, Highly Potent Corticosteroid Ester For Dermatoses

Favorable response is demonstrated with Bethamethasone 17-valerate treatment in a select patient group

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One of the most interesting facets of medical research in the past decade has been the synthesis of corticosteroids. After systemic steroids were developed, their later topical counterparts were associated with well-known curious findings; a steroid which might be very effective when given by one route might be more or less effective by another.

There were many other considerations in the use of topical steroids. Fat/water partition coefficients seemed to play a part in the activity of topical preparations. Skin hydration and temperature were possibly important to activity of these drugs, too. The anatomic parts of the skin penetrated by the preparation constituted another point for study. In many preclinical studies, deliberate maceration of the epidermis before treatment led to the idea that there may be greater corticoid effect on the stratum corneum, as well as more prolonged activity, after the epidermis is penetrated or macerated. Some maceration has occurred when occlusive dressings are used to promote the penetration of deep layers of the skin. As part of the use of occlusive dressings, it was observed that vasoconstriction was indicated by the skin pallor which developed.

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The possible relationship of vasoconstriction and corticosteroid effect was then considered. McKenzie and Stoughton [1] studied normal volunteers to evaluate percutaneous absorption of dexamethasone, triamcinolone, and fluocinolone acetonide, using vasoconstriction as an index of percutaneous activity. They believe that increased hydration and increased temperature may influence activity. They further conclude that vasoconstriction might partially account for anti-inflammatory activity. To confirm the latter, they studied [2] the vasoconstrictive activity of betamethasone and 23 of its esters and ortho-esters and found that the highly potent, anti-inflammatory 17-valerate had over three times the vasconstrictive power of the standard (fluocinolone acetonide).

Williams and Wilkinson [3] compared the effects of six topical corticosteroids in 807 patients (345 with psoriasis and 462 with eczema), observing that betamethasone 17-valerate was likely to produce a better response than any of the five other topicals tested. They also supported the theory of a relationship between molecular structure of the steroid, vasoconstrictive activity, and efficacy.

The results reported by all of these investigators made it seem reasonable to believe that the dermatologist could now select the topical corticosteroid he wished to use not only from a group of corticosteroid molecules but also from esters of classic molecules.

We decided to try this new ester—betamethasone 17-valerate, as an emollient cream—in our practice, and we reviewed the compound's properties in detail.

Before these are discussed, it might be appropriate to note the qualities other than effectiveness which one seeks for a patient. Cosmetic acceptability requires a nonstaining, nongreasy material, nondrying to the skin and not requiring a cumbersome, unsightly dressing. But the practitioner's first interest must be in an acquaintance with the properties of the agent to be used.

Pharmacological Data

Betamethasone 17-valerate was derived from the synthesis of over 50 steroid compounds. It is the valerate ester of betamethasone. The five-carbon chain of this ester seems to produce optimal topical activity, while decreased activity occurs with longer or shorter chains.

The base of the cream preparation is microdispersed and water miscible. It contains mineral oil and petrolatum to increase occlusive properties, a nonirritating emulsifier to promote absorption by lipophilic and hydrophilic properties (polyethylene glycol 1,000 monocetyl ether), a hydrophilic wax (cetostearyl alcohol), and a preservative (4-chloro-m-cresol). It also contains monobasic sodium phosphate and phosphoric acid to simulate the normal pH of the skin. Intracutaneous absorption seems to occur with this cream, facilitated by an optimal fat/water partition coefficient.

The adjunctive activities of the base, along with the qualities of the ester, are believed to cause more vasoconstriction, more intracutaneous absorption, greater activity, and thus less

The product tested was Valisone,(R) Schering Laboratories, Bloomfield/Union, New Jersey.

potential need for occlusive dressings or intralesional injections.

Besides having these qualities, the cream is moisturizing, soft, white, and easily spread, which makes it more acceptable to patients. It contains nothing which will stain skin or clothes. Further, the preparation is nonsensitizing and hypoallergenic.

Although sensitization, resistance, and significant systemic absorption have not been clinically prevalent with topical steroids, the consideration of these possibilities must be kept in mind when any such medication is used.

Method

After review of all these factors, this clinical study was designed. Many dermatologic diseases were represented in the group treated. Most (91) of the 100 patients selected had psoriasis, atopic eczema, contact dermatitis, seborrheic dermatitis, neurodermatitis, dyshidrosis, or nummular eczema. The others (9) had various other skin diseases which will be mentioned later.

Along with diagnostic diversity, there was great age variance; the range was from four months to eighty-two years. Twelve were less than twelve years old, 9 were between twelve and twenty, 35 were between twenty and forty, and 44 were over forty years of age. Population parameters were further represented by the fact that this group was virtually equalized as to sex, there being 45 male and 55 female patients.

The test of the drug also was made more rigorous by selection of patients with resistant dermatoses. More than half of the patients had been ill for more than a year. Only 11 had dermatoses of less than one month's duration.

Duration of therapy was not controlled except by the need of the patient; most patients (82) used the cream 4 times daily, two used it 3 times a day, and 16 applied it more than 4 times daily.

Previous treatment was known to have been tried by 72 of the 100 patients. Other local steroids had been used by 38, and local and systemic steroids had been given to 28; 4 had used various forms of treatment. In the remaining instances, the treatment history was uncertain. None of the patients received concurrent medication.

The results obtained with betamethasone 17-valerate were evaluated as "excellent" if the patient had complete and sustained relief of his symptoms, "good" if results were highly satisfactory but some symptoms remained, and "fair" if symptoms remained, with only minimal improvement.

TABLE I

Results of Treatment with Betamethasone 17-Valerate

Diagnoses	Excellent	Good	Fair	No Improvement	Side Effects	Totals
Psoriasis	3	1	3	0	0	7
Atopic eczema	17	5	2	0	0	24
Contact dermatitis	11	2	0	0	0	13
Seborrheic dermatitis	4	2	1	0	0	7
Neurodermatitis	10	6	1	0	0	17
Dyshidrosis	10	4	3	0	0	17
Nummular eczema	4	2	0	0	0	6
Other*	3	2	3	1	0	9
TOTALS	62	24	13	1	0	100

* 1, atopic dermatitis with neurodermatitis; 2, stasis eczema; 1, alopecia areata; 1, alopecia totalis; 2, lichen planus; 1, pruritus vulvae and ani; 1, x-ray dermatitis.

Results

Of the 100 patients treated, 86 responded favorably to the drug (Table I), thirteen patients obtained fair results, and only one failed to improve. The duration of treatment varied from 8 to 50 days in 98 patients, and the other 2 continued to use the medication (Table II). Most of the patients used it for 22 to 30 days. In patients with such severe and persistent dermatitis, this speed of relief is rare. Relief of pruritus, erythema, and scaling was gratifying, as was the safety of the drug, even in patients using it several times a day.

Of the seven patients with psoriasis, four experienced satisfactory results. Betamethasone 17-valerate was considered the most effective local corticosteroid they had used.

The discomforts of atopic, contact, and seborrheic dermatitis were also reduced. Although all drugs are used with caution in children, promising results were seen in children in these groups. For example, a five-year-old girl and a nine-month-old girl with atopic eczema responded well to treatment. There was good control of erythema and scaling in a four-month-old girl who had had seborrheic eczema since birth.

Neurodermatitis improved significantly in sixteen of seventeen patients. The treatment of a fifty-year-old man who had neurodermatitis of the groin for four years was rather typical: he had previously been given local and systemic steroids; betamethasone 17-valerate produced superb results and was the only local steroid which controlled his dermatitis.

All six patients treated for nummular eczema were satisfactorily relieved by this preparation, as were fourteen of the seventeen patients who had dyshidrotic eczema.

In the group of nine patients with various other dermatoses, betametha-

TABLE II

Duration of Treatment, in Days

Diagnoses	8-14	15-21	22-30	31-35	36-42	43-50	Continued	Totals
Psoriasis	1	. .	6	. .	. .	. .	. .	7
Atopic eczema	2	1	12	2	3	3	1	24
Contact dermatitis	. .	2	8	1	. .	2	. .	13
Seborrheic dermatitis	. .	1	4	. .	1	1	. .	7
Neurodermatitis	. .	. .	12	. .	1	4	. .	17
Dyshidrosis	. .	1	11	1	1	3	. .	17
Nummular eczema	1	1	1	1	. .	1	1	6
Other	. .	. .	6	. .	2	1	. .	9
TOTALS	4	6	60	5	8	15	2	100

sone 17-valerate was very effective in those two who were treated for stasis eczema. Results were not as good in two patients treated for lichen planus, two for alopecia totalis or areata, and one for x-ray dermatitis. The one patient who had pruritus vulvae and ani obtained excellent results from the treatment, although she had had her disease for fifteen years.

In reviewing effects of treatment in all one hundred patients, it is interesting and promising that highly acceptable responses occurred without the adjunctive use of occlusive dressings.

We found no evidence of systemic absorption or side effects in the group of patients studied. Nor was there a single incident of irritation or sensitivity, even though the drug was used more than a few days and with more than the suggested frequency.

The preparation is highly anti-inflammatory. It apparently demonstrated a much better effect than any of the local steroids available today.

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William A. Sodeman, M.D., *Dean and Vice President for Medical Affairs*

Split Function Studies

Recent observations in patients with renovascular hypertension include the following:

1. The rate of water excretion, as measured separately from both kidneys, may be a sensitive indicator of significant occlusive disease, in spite of minimal loss in renal function.

2. Cure of hypertension in renovascular occlusive disease depends upon the absence of small vessel disease in the contralateral kidney, as measured by para-aminohippuric acid (PAH) clearance of 250 ml./min./m.^{2} in the contralateral kidney.

3. Renal angiography does not give a reliable estimate of small vessel disease.

4. Small vessel disease may be present in spite of a vascular occlusion with a significant water and sodium reabsorption pattern, as determined by split-function studies.

Thomas A. Stamey, M.D.,
Albert Einstein Medical Center
Symposium on Vascular Disease.

Rheology of Flow Stasis

Flow stasis, vessel injury, and hypercoagulability are the etiologic foundations of the thrombotic process. Probably at least two of the three factors must be involved in order to initiate thrombus formation.

When erythrocyte aggregation was studied as a cause for thrombus formation, it led to the study of dextrans—for their antisludging properties, or as "flow improvers." Dextran was found to influence other factors of thrombogenesis.

The effects of dextran *in vivo* influence all three classic factors in thrombogenesis. Due to its potent dilutional effects, dextran reduces erythrocyte and platelet concentrations, erythrocyte aggregation, and plasma protein values. In increases the negativity of red cell change as well as that of the intimal surface.

Both the dilutional effects and the surface change effects reduce the cause of erythrocyte aggregation and sludging. Dextran also interferes with platelet aggregating factors. Clinical experience with its use in arterial grafting procedures, in the early treatment of thrombophlebitis as a priming fluid in extracorporeal pumps, have generally been favorable.

Roe E. Wells, M.D.,
Albert Einstein Medical Center
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Digitalis Regulation in Pediatric Practice

What are the indications for the use of digitalis in children?

The prime indications are: congestive heart failure and supraventricular arrhythmias.

What are the contraindications to the use of digitalis?

The only absolute contraindication is digitalis toxicity.

How does digitalis work?

There are many theories to explain the strengthening effect of digitalis on the failing heart muscle. However, the end result is generally the improvement in cardiac output, kidney function and gaseous exchange in the lungs. Consequently edema, anoxia, tachypnea and tachycardia are usually relieved. This effect is best seen in the electrocardiogram by the prolongation of the P-R Intervals (increased conduction time through A-V node) and shortened Q-T Intervals.

What are the problems of digitalis regulation in children?

Proper digitalis dosage depends on age, sensitivity to the drug and the type of heart disease. The premature infant does not tolerate as large a dose as the more mature infant, although later in childhood the dose becomes smaller in relation to weight. Sensitivity may be affected by such conditions as variability of electrolytes in tissue cells and fluids. In primary myocardial disease (myocarditis) digitalis is less well tolerated, and response is disappointing in cyanotic heart disease with failure. Patients with paroxysmal atrial tachycardia respond more slowly than those with congestive heart failure and usually require larger doses.

What are the common pitfalls of digitalis therapy in children?

These are usually to small a dose to be effective, too large a dose causing toxicity, inadequate monitoring and failure to recognize signs of toxicity.

What is the best digitalis preparation to use in children?

Digoxin is the preparation of choice. It is quick acting, the onset being three to eight minutes with maximum effect in two to three hours if given intravenously. When given intramuscularly or orally, digitalis effect occurs in one to two hours with a maximum result in six to eight hours. Most of the drug is excreted within 48 to 72 hours, although some effect may continue for four to seven days.

What is the proper digitalis dosage for a child?

Dosage must always be decided on an individual basis. However, in general, the total digitalizing oral or intramuscular dose is as follows: 0.02 mg. per pound for premature infants, 0.03 mg. per pound for full term newborns up to children of 50 to 60 pounds, and 0.02 mg. per pound for children over 60 pounds. Give half the total dose initially, followed in six hours by one-quarter the total dose and the remaining quarter in another six hours. Before maintenance treatment, it may be necessary to give another quarter of the total dose after a six hour period if the response is inadequate and there are no toxic signs. In the acutely ill patient, digitalis may be given intravenously, but the dose must be cut to two-thirds or three-quarters of the usual schedule, and the intervals between doses may be two to three hours depending on the severity of the illness. The maintenance dosage is generally one-quarter of the total digitalizing dose given in two divided doses daily. This divided dosage usually gives a more uniform effect, and, if necessary, permits a larger total dose in a 24-hour period. Dosage, in any event, always should be adjusted to give an effective response without toxicity.

What measures can be used to improve the effect of digitalis?

Oxygen with moisture, being careful not to chill the patient, is helpful. For acute failure, morphine, in doses of 0.1 mg. per pound up to a total of 8 mg. in the large child, decreases respiratory distress. To decrease fluid retention, if there is adequate kidney function, mercurial diuretics may be used. If there is pulmonary edema with generalized edema, alternating tourniquets to the extremities may also be helpful. For severe metabolic acidosis in a young infant, one can try intravenous sodium bicarbonate. In cases of less acute failure, a low salt diet with diuril and potassium supplement can be effective. Finally, any infection or other underlying cause of the failure should be determined and treated.

■ **William G. Leaman, Jr., M.D., questions Cora C. Lenox, M.D., Cardiac Clinic, Children's Hospital of Pittsburgh, Pittsburgh, Pennsylvania.**

William G. Leaman, Jr., M.D., Fellow, Council on Clinical Cardiology of the American Heart Association, edited this Brief for the Council on Scientific Advancement, in cooperation with the Pennsylvania Heart Association.

What's Ahead for U.S. Medicine?

"It is a proper function of government to do for the people what the people cannot or will not do for themselves" **Abraham Lincoln**

HORACE COTTON
Southern Pines, North Carolina

This article originally was presented before the Spokane County Medical Society, Spokane, Washington, October 26, 1965.

Horace Cotton is a professional management consultant. He was aided in this study by a grant from Merck, Sharp & Dohme.

What's Ahead for U.S. Medicine *initially appeared as a feature in the July, 1966 issue of* Northwest Medicine.

I came to the United States from England fifteen years ago. Observing the American medical scene over that period of time, I have often felt as though I were watching a movie that I had seen before. And sometimes I have a horrible feeling that I know how it comes out. I hope it doesn't come out the way it did in Britain, but at times I wonder.

Almost all the countries represented in the United Nations have some form of compulsory, national health-insurance. The truth is that this is only Western nation of any consequence that does not have any. That's one of the reasons why I feel at times that I have seen the movie.

The outstanding example in the Western world of compulsory national health-insurance is the famous, infamous, if you like, British National Health Service. The most recent example of course is just north of us, in Canada.

After seven years of "free" hospital care, Canada is on the brink of introducing compulsory "free" physicians' care. Personally, I think Canada will get it. So you see, it's coming very close to our border.

I spend a lot of time wondering about this movie. I wonder whether there is any way at all to change the script. That's what I should like to use as the subject of this paper.

Having seen what has happened during the past fifteen years, I should like to predict what is going to happen in the next fifteen years. Some things, if one looks in the crystal ball, are easy to predict. I'll make eight predictions right now:

I

First of all, in the next fifteen years *there will be more specialists.* There are twice as many specialists in this country today as there were when I came here in 1950. The general practitioner is on the way to becoming extinct. Last year less than 18 percent of graduating physicians said they intended to go into general practice. By the way, in Britain only one general practitioner in seven is under 35 years of age, so you can tell what is happening there.

The replacement for the general practitioner in this country will be a four-man team: an internist, an obstetrician-gynecologist, a pediatrician, and a general surgeon. Seven out of eight specialists in this country today belong to those four specialties.

II

Of course, in fifteen years *the doctor shortage will increase.* It is estimated that by 1970, the number of physicians graduating annually will be at least 2,000 below the number required. Perhaps there will be, in 1980, a shortage in each graduating class of 4,000 or 5,000 doctors.

But I wouldn't say that this necessarily means a shortage of doctors in private practice. Private practice today is, in many respects, pretty competitive. I have yet to be convinced that there is an acute shortage of doctors in private medical practice. A great deal of the present doctor shortage actually is occasioned by the fact that so many new physicians are going into academic medicine, research, government employment, industrial medicine, and all kinds of salaried employment. It just seems that these fields have an insatiable appetite for new doctors. I'm not at all sure there's a shortage of what I might call *real doctors,* that is, physicians who treat patients.

III

I think that in fifteen years *doctors in private practice will be working even harder.* You'll see more patients.

The doctor who fifteen years ago saw 25 patients a day, sees 40 or more today. This is possible because you have more help. When I came to this country, it was quite usual for a solo doctor to have one aide. Now most of them have two. Some have more. This trend will continue.

Then, of course, there have been advances in medical science, particularly in the drug industry. Four out of five of the drugs you use today were not known fifteen years ago. It is perfectly possible the drugs that will be in common use fifteen years hence have not been discovered. These drugs will contribute to your ability to practice more efficiently and to see more patients than ever.

IV

I am sure that *the cost of being a private physician will rise.* In 1950 the average cost of maintaining a medical practice was on the order of $6,000 a year. In 1964 it was $12,000. This year, 1965, it will probably be nearer $14,000. I don't see any end to that particular inflation and, appalling as it may sound to you, probably fifteen years from now you will have to take in $25,000 before you begin to feed your family or pay your taxes.

Of course, fifteen years from now fees will be higher, just as they are higher today than they were fifteen years ago. However, medical fees, when they go up, do so considerably later than the cost of living. There is always a time lag between advancing living costs and advancing medical costs. I'd say it takes just about a generation—25 years—for medical fees to double. About 25 years ago the

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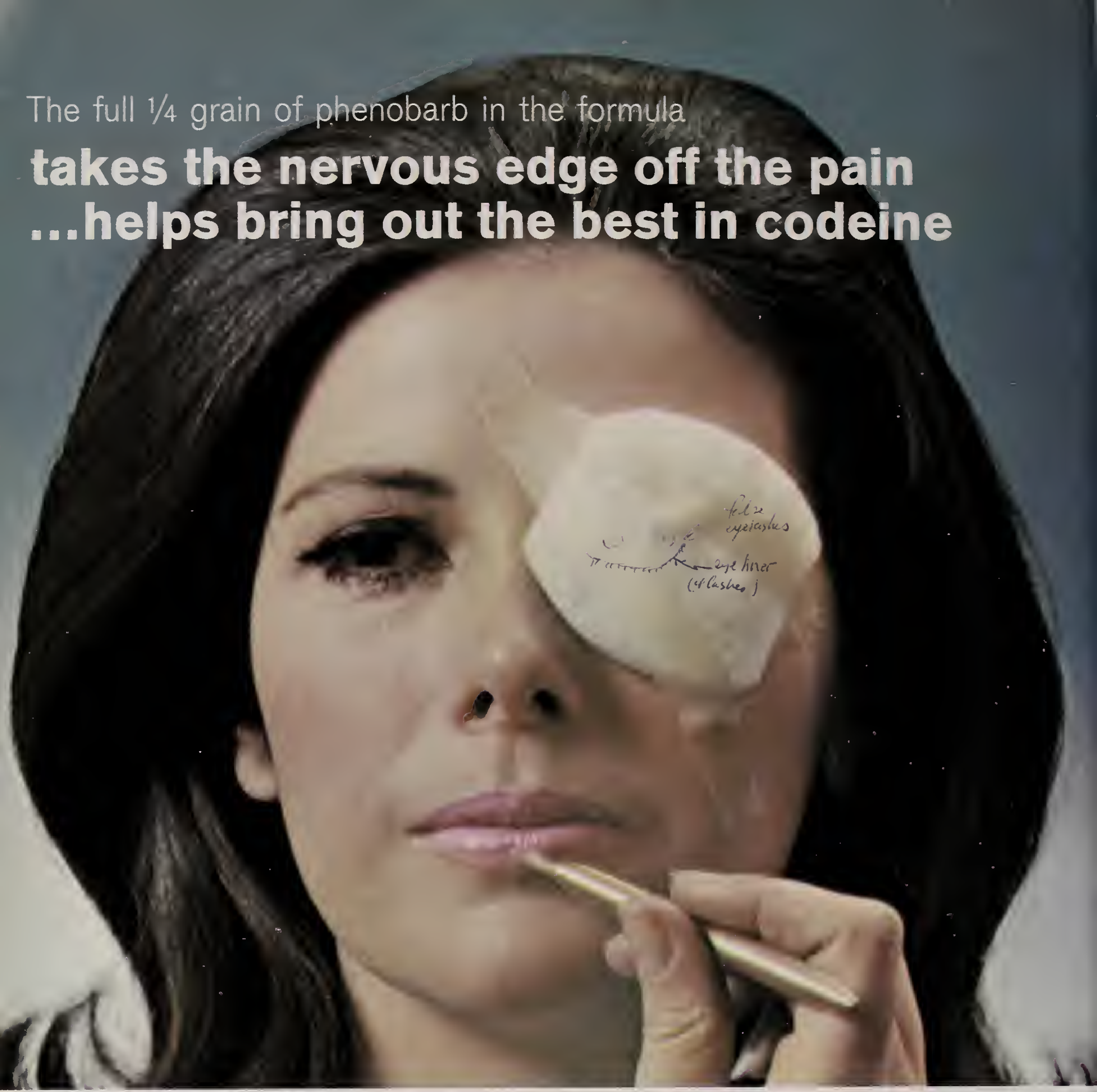
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$3.00 office visit was routine. I am sure that by 1980, it will be $10.00. I can't imagine it being very much less.

But I don't think you will necessarily be any better off in 1980, relatively speaking. With advancing living costs, your purchasing power will probably remain about the same.

In the days when your incomes were one-half of what they are now, today's $3,000 automobile cost $1,500. The girl you now pay $80.00 a week got $25.00 a week. So relative buying power doesn't change much, even in years of inflation. Fortunately, even though, as doctors, you will never be rich, you'll probably go on making a decent living.

V

One big change I foresee is a tremendous move toward *combined practice in contrast to solo practice.* I foresee the day when the solo doctor will be considered somewhat of an eccentric—a loner. In 1950 approximately one-fourth of U.S. physicians practiced in combination by sharing expenses or income, or both. In 1965, just over one-half of all U.S. physicians are in combined practice of one form or another. So the growth of partnership and group practice and expense-sharing is very real. Partnership and group practice is very much liked by patients, and will surely grow.

VI

I foresee in the coming years *a great strengthening of the grip of the hospital on the doctor.* This is already an observable trend. Hospitals are in every possible way attempting, and to a large extent succeeding, in exercising increasing control over medical staffs. This I think is a great tragedy, because the hospitals are actually attempting to assume power without responsibility. You are responsible for the patients, but the hospitals want the power.

You should make absolutely certain that you are consulted on every major change affecting the medical staff. I give you that as a very serious warning. The focal point of power in every country having a national health service has been the hospital. I don't want to be a Jeremiah, but: *Don't take things for granted as far as your relations with hospitals are concerned. Make sure that you are fully consulted on every move.*

VII

Another thing I foresee is *a decline in voluntary insurance.* Until now, it has gone up year after year. The latest figure is that 151,000,000 Americans have hospital expense insurance, and that is 80 percent of the population. One hundred and forty million have some surgical expense insurance. One hundred and eight million have some nonsurgical expense insurance, and forty-seven million have major medical insurance.

There's one great trouble about our voluntary health insurance. While about four-fifths of all Americans have some form of health insurance, the unfortunate truth is that voluntary health insurance pays only one-third of the national medical bill. That's because while the 800-odd purveyors of voluntary health insurance concentrate on selling policies, they do not provide benefits that meet the full cost of hospital and doctor care. Unless policyholders get a better deal from voluntary insurance, a great many people are going to become disenchanted with their coverage.

In particular, the allowances that insurers pay for doctors' services are just nonsensically unrealistic. They tend to depress medical fees and medical incomes. I would say if I were speaking to the health insurance industry; "Please stop shooting for more policyholders and instead shoot for more benefits at a fair price."

VIII

Recent developments *threaten the very survival of voluntary health insurance.*

Beginning in July, 1966, those over 65 in the U.S. are going to get their hospital care tax-paid. They are going to get physicians' services for an initial contribution of $3.00 per person per month.

What's the next move? Is it going to end the way it has ended in Scandinavia, Germany, Britain, Australia, New Zealand and now Canada?

Believe me, the idea of so-called free medical care is mighty attractive to the people. I have two daughters in Britain. They are both married. One has two children, the other has three. Neither of my daughters knows what it is to pay a doctor, a hospital, a druggist or a dentist. And when I go to Britain I have to explain to them a system where you do pay the doctor, the dentist, and hospital. My elder daughter said to me one day: "Dad, it sounds rather like having to pay a policeman for catching the burglar." This is the impression that people get when they have been brought up on a tax-paid system.

Do you realize that after next July, when Medicare comes in, 50,000,000 Americans will be looking to Uncle Sam to foot the bills for medical care? That number will include the 18,000,000 over age 65, all those in military service, all the dependents of the military forces, and all the Federal employees whose insurance is paid by the employer, all the veterans, all the people hospitalized by the U.S. Public Health Service, all the Indians, and all the prisoners in jails. That's 25 percent of the population right there.

If you want to know what I think will be the next development, it is that tax dollars will pay for the age-group under 18. Left will be the 18-to-64-year old population, who will pick up the tab for the young, the old, the jobless, and all the rest. Finally, they are going to ask somebody to pick up the tab for *them.*

The Medical Maginot Line

You wonder, as I do: What can we do to stop this? Well, the first thing you can do is to start doing something to help yourselves. Just don't leave everything to the American Medical Association.

The American Medical Association operates on the principle of the Maginot Line. You remember that in 1939, France dug in behind the Maginot Line. It was "impregnable." All they had to do was resist, and no one would pass. Of course, nobody tried to pass. The Germans went around the corner. That's what will happen to you if you depend upon your Maginot Line by just saying *No.* You'll be bypassed.

You will have to influence your own American Medical Association to sit down at the table and talk some kind of middle ground that you can live with, and that the politicians will agree to live with. As long as you just stagnate, you are going to be outflanked. You were outflanked this summer. Congress passed around your Maginot Line.

The Backlog

I also think doctors should stop saying that nobody in this country goes without medical care for lack of means. It isn't true. People in this country do go without medical care for lack of means. What is true—and what you mean—is that *you* don't turn anyone away for lack of means. But a great many people who lack means *don't come to you.* You are going to find this out next July when people over 65, with their hernias, hemorrhoids, and all kinds of other things, come out of the woodwork. Every household with an ancient person will have a truss-burning in 1966. Now, in one way, that won't harm you because you're going to get paid for this work. Before, you did it for nothing.

The experience in all of the countries that have introduced national health insurance has been that there was an unexpected, huge backlog of health care. The health care was not vital, not emergent, but just desirable. Now that such care can be obtained here without paying for it directly, it is going to be obtained.

Please don't say that under Medicare the standard of medical care in this country will drop. I don't believe it. Under any system, you will still be physicians. The only way the standard of medical care can drop is that you, as physicians, do less than your best. I know that you aren't going to do that. So it's really rather foolish to tell the public that under Medicare they'll get poorer care. You are simly denying yourselves.

Also, don't say that introduction of Medicare will destroy the doctor-patient relationship. The signature on a check doesn't change the relationship between doctor and patient. Incidentally, it won't be a government signature on the check. Medicare will be administered through fiscal agents, chiefly Blue Shield and Blue Cross.

Nonparticipation Is Foolish

All over the country there are physicians in pockets of resistance in the medical profession who say: "Let us not participate in Medicare." I think that's foolish. Who will be hurt by nonparticipation? Only the patients. When they wish to see you and can't because you won't participate in Medicare, they will have to go to some other doctor as a substitute. They won't feel happy. Don't think for a moment you'll be hurting Uncle Sam. Uncle Sam won't care.

What Can Be Done?

The big thing you can do is to help improve the voluntary system of health insurance, so that extension of the compulsory method is unnecessary. "It is a proper function of government to do for the people what the people cannot or will not do for themselves." That's not original with me, I am quoting President Lincoln. It's a very sound thing to say. It's the reason the government defends the people through the military forces. It's the reason local government protects the people with police forces. It's the reason State governments educate children through the school systems.

But the government doesn't feed the people. The government doesn't clothe the people. The government doesn't house the people. All of these things are basic necessities of life, much more basic than medical care. That's why I don't think government should provide medical care. But if the people cannot and do not provide it for themselves, then the government will. This is historical truth.

The task that lies before us is to show that compulsory national health service is not just politically wrong in this country, but economically unnecessary. If voluntary effort can do the job, then compulsory government effort is not needed. This is the task before the profession and the insurance industry: To make the voluntary system so good that the compulsory method will never be extended.

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Precautions: As with all new drugs, blood and liver function tests are advisable during prolonged treatment. **Pending further experience, like most chemotherapeutic agents, this drug should not be given in the first trimester of pregnancy. It must be used cautiously in patients with liver disease or severe impairment of kidney function.** Because photosensitivity reactions have occurred in a small number of cases, patients should be cautioned to avoid unnecessary exposure to direct sunlight while receiving NegGram, and if a reaction occurs, therapy should be discontinued. The dosage recommended for adults and children should not arbitrarily be doubled unless under the careful supervision of a physician. Bacterial resistance may develop.

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References: (1) Based on 23 clinical papers, 1512 cases. Bibliography on request. (2) Bush, I. M., Orkin, L. A., and Winter, J. W., in Sylvester, J. C.: Antimicrobial Agents and Chemotherapy—1964, Ann Arbor, American Society for Microbiology, 1965, p. 722.

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*As many as 9 out of 10 urinary tract infections are now caused by gram-negative organisms: E. coli, Klebsiella, Aerobacter, Proteus, Paracolon or Pseudomonas[2]... However, infections of the urethra and prostate caused by non-gonococcal gram-negative organisms are believed to be less prevalent.

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Health and Welfare Areas of Concern

WILLIAM B. WEST, M.D.
President
Pennsylvania Medical Society

• Legislative and administrative proposals for improving health and welfare practices in Pennsylvania as presented by Dr. William B. West, President, PMS, for the consideration of both major political parties in the Commonwealth in the belief that the common good should transcend political barriers.

The Pennsylvania Medical Society represents 12,000 doctors of medicine in the Commonwealth. The organization was founded in 1848 and, since that time, has been active in public health and welfare matters. Part of its purposes as defined in its constitution charges it with advocating and supporting the enactment of such legislation as will accrue to the health and well-being of the public. Significant developments have been made in those fields, and the Pennsylvania Medical Society is proud to have been a part of the legislative and administrative moves that have brought about these developments.

It is significant that there has been a strengthening of the partnership role between the state organizations such as the Pennsylvania Medical Society and the administration of the Commonwealth. To say we have been pleased to have been consulted by past administrations in public health and welfare matters is a vast understatement. We hope that such consultations have been helpful and that future administrations will call upon the Society and its "men of medicine" in legislative and administrative matters in the public interest.

Despite the accomplishments of the past, other important strides must be made if the Commonwealth is to retain its high stature in the field of public health and welfare. The Pennsylvania Medical Society, cognizant of its responsibilities, has given deep thought to problem areas and brings to the voter's attention urgent legislative and administrative necessities. This is not presented as an all-inclusive statement. Instead, it concentrates on the few areas we believe deserve the greatest consideration.

Medical Examiner System

The first of these areas concerns our deep conviction that the Commonwealth should move from the antiquated coroner's system to a more efficient, modern and scientific medical examiner system. Of the many relationships that exist between medicine and the law, none is more important than those closely integrated medical and legal activities that have as their common purpose the protection of society against the willful or wanton destruction of human life.

The taking of human life through negligence, or with intent, constitutes one of the most serious offenses that can be committed against society. When homicide is known or suspected, the procedure by which the dictates of the law are met is normally divided into two phases. The first is inquestual, and has for its purpose the acquisition and appraisal of evidence; the second is judicial, and consists of a trial by jury of the person or persons who have been charged with the crime.

According to the laws of the Commonwealth, both the acquisition and the initial magisterial appraisal of evidence relating to deaths known or suspected to have resulted from homicide are the responsibility of the Office of the County Coroner—an office which was transplanted from old England to North America in the early Colonial period. With the passing of the centuries, various changes have occurred which make the ancient Office of Coroner, with its combined medical and legal functions, unsuited to participate effectively in the administration of modern justice. One such modern change responsible for the outmoding of the Coroner's Office as originally constituted is the development of law enforcement agencies as represented by the police and the Office of District Attorney. There now exists in every jurisdiction a police organization that is not only more competent than the Coroner's Office in acquisition of nonmedical evidence, but also in the apprehension and arrest of suspected criminals. There also exists in every jurisdiction a District Attorney, whose qualifications are legal, and whose duties are such that he is better fitted than is the Coroner to look after the legal interests of the public in cases of suspected homicide. There also exists established municipal, county or district courts in every jurisdiction which are better constituted to conduct the magisterial functions of the inquest than is the Coroner's court.

The Medical Examiner's chief role in the criminal or civil court of law is that of an expert witness. Though he does, in some instances, have the power to administer oaths and affirmations, he is not a magistrate as is the Coroner. This is the fundamental difference in the conception of this office and it is shown in a variety of ways. The Medical Examiner does not commit persons to prison; he investigates deaths, takes statements from witnesses, and performs or has performed all necessary tests—modern laboratory procedures of histology, toxicology, serology, bacteriology and autopsies—to determine the cause of death. It is the law enforcement officials who decide what to do with the information gathered as a result of the work done by the Medical Examiner.

The Coroner system in Pennsylvania lags far behind in the use of technology already available, desirable and possible. The present Coroner system in Pennsylvania appears to be entrenched; unchanged and unchanging. Today the forces of change in society should be in the direction of using the technical expertise resulting from proven scientific advances. Increasingly throughout the United States, the Coroner is being replaced by the Medical Examiner.

Several years ago, the Committee on Medical/Legal Problems of the American Medical Association reached several significant conclusions: (1) Throughout most of the United States, Medicine participates less effectively in the administration of justice than it does in any comparable country in the world; (2) The ineffectual manner in which medical knowledge and skill are utilized in the administration of justice in many jurisdictions of the United

States undoubtedly predisposes to: (a) the nonrecognition of murder; (b) the unjust accusation of innocent persons; (c) the improper evaluation of medical evidence bearing on the circumstances in which fatal injuries were incurred; (d) failure to acquire medical evidence which would be useful in the apprehension of criminals; (e) failure to acquire medical evidence essential to the administration of civil justice; (f) ignorance of certain otherwise preventable hazards to public health, and (g) impairment of value of vital statistics.

We firmly believe that the residents of Pennsylvania deserve professionally competent official medical investigators. We would be pleased to work with any group in the preparation of suitable legislation to bring about a strong medical examiner system in Pennsylvania. We recommend for your reading an article entitled "Philadelphia Medical Examiner," reprinted from the *Temple Law Quarterly*, Volume 37, No. 2, Winter, 1964 edition. As the Committee knows, the City-County Charter of Philadelphia resulted in Philadelphia having a Medical Examiner who is a qualified forensic pathologist. One of the paragraphs in the Temple Law Study is entitled, "Philosophy of the New Office" and reads as follows: "Underlying the change in philosophy attending the transfer to an examiner system is the proposition that if the proposed activities of the examiner are in the public interest, means should be found to give effect to such proposals. The public interest thus becomes the determinative factor in weighing the advisability of action versus inaction. Where previously the Coroner sought to limit his jurisdiction and to hold postmortem examinations only in cases where it was absolutely necessary, the Examiner has not actively sought to extend his activities except in certain limited areas. For example, in the fields of perioperative and infant crib deaths. In these areas the sought-after extensions pertain to public health matters affecting the well-being of the entire community."

We urge all voters to take a strong position and a step forward in quest of this medical/legal efficiency by coming out strongly for a Medical Examiner System. We have available copies of the study "The Office of Coroner in Pennsylvania," completed by the Institute of Public Administration of the Pennsylvania State University in 1965. A copy of this report is available from the Pennsylvania Medical Society headquarters in Harrisburg.

Health and Welfare

Our next recommendation is merely an extension of an already enlightened state attitude with respect to several of the Commonwealth health and welfare programs that have been expanded recently. We believe regulations should assure persons receiving public assistance grants that they are not considered second-class patients. We believe the public welfare load should be placed back in the mainstream of the population, and, instead of providing a medical program through the Department of Public Welfare, the purchase of medical insurance from a nonprofit firm such as Blue Shield should be considered. We understand that this is intended for the over-age-65 welfare recipients and we recommend its extension to other welfare areas where feasible. This suggestion, if carried out, should have the beneficial result of correcting the "economic punishment" inflicted on physicians who work with the Department of Public Welfare's recipients, and the subsequent feeling on the part of some recipients that he or she is receiving in part the personal charity of the physician. Such action should increase the availability of medical care, especially in those areas of the state where the economic opportunity is below average.

DR. WEST

Insurance Concept

In the Federal Medicare Program, the government utilizes the experience of hospitalization and medical insurance firms by giving them roles as agents of the government in the processing and payment of claims and attendant duties. We feel it would be most unwise and costly for the Department of Public Welfare to attempt to establish its own insurance section when the long experience of existing nonprofit firms might be utilized. We suggest that the welfare department use the insurance concept for its recipients to the greatest degree feasible, and that the experience of existing nonprofit insurance firms be used by giving them roles similar to their responsibilities under the Medicare Program.

In Pennsylvania's implementation of Title XIX, Medical Assistance, we suggest that any proposals to liberalize further the criteria for establishing the eligibility of persons not receiving public assistance grants be given a long, hard examination. We should be certain we do not establish asset and income limitations so high as to place an unfair financial burden on the taxpayers of Pennsylvania.

The progressive development of the Medical Assistance Program as mandated by the law is fraught with problems which can be avoided or minimized through close consultation between the administration and the medical profession. We are available for such consultation at any time and are pleased that meetings are taking place. You should continue the recent advances in the prescribing of drugs and the adoption of an adequate formulary for welfare recipients. Your position should be that physicians be allowed to prescribe what they feel is best for their welfare patients, the same as they do for other segments of the population. The State should not ask physicians to prescribe only generically, or to prescribe the most inexpensive drugs, because quality is an important factor. Over 2,000,000 prescriptions are being filled annually in 3,000 Pennsylvania pharmacies for assistance recipients. If physicians were to prescribe only generically, quality control over this number of prescribed drugs by the Department of Health clearly would be impossible. Such a move would subject public assistance recipients to the possibility of receiving second-class health care.

State Tuberculosis Facilities

Our next recommendation should easily be accomplished. You are encouraged to support legislation which would allow patients with chronic chest diseases to be admitted to unfilled beds in tuberculosis sanitoria. Such legislation makes sense in a Commonwealth which very shortly may be experiencing a hospital bed problem resulting from medicare, while beds in tuberculosis hospitals are unfilled.

For several years, the Department of Health has recommended enactment of such legislation to permit the use of the state tuberculosis hospitals for diagnosis and treatment of indigent persons suffering from all chronic respiratory diseases, as well as tuberculosis. Modern methods for treatment of tuberculosis have greatly reduced the length of hospitalization, as well as made it possible to treat many patients at home. This situation has created empty beds in tuberculosis hospitals. However, such diseases as emphysema, bronchitis, and neoplasms have shown sharp increases as causes of death. Pennsylvania also has a peculiarly serious problem in pneumoconiosis and anthracosilicosis. In the past five years, fifty-five percent of all deaths from pneumoconiasis and ninety-three percent from anthracosilicosis in the United States have occurred in Pennsylvania. Opening the tuberculosis hospitals to other chronic respiratory diseases should aid greatly in upgrading the level of medical care and the development of in-hospital rehabilitation programs, and should increase the life span and productivity of persons suffering from respiratory diseases. This legislation could also offer opportunities for much-needed research and provide training facilities for new medical and related personnel.

Boards of Licensure

Our next suggestion is that you pledge yourself to provide the best possible environment for the operation of the various boards of licensure. We would ask you to provide sufficient funds, staff and equipment for the operation of the various boards. All of the boards, especially the State Board of Medical Education and Licensure, continually are being asked to perform wider administrative assignments. Recently, the boards were transferred from the Department of Public Instruction to the Department of State. Although the Pennsylvania Medical Society supported this move, we are still concerned that the most desirable personnel and management policies have not yet been achieved. For example: a short time ago the Pennsylvania Health Council was asked to undertake a health personnel inventory in preparation for the advent of medicare. A visit to several of the boards showed that the records of those boards—due to no fault of their own, but rather to a lack of personnel and money—were insufficient for the study.

It is of the utmost importance that vacancies on the Board of Medical Education and Licensure be filled promptly by the most highly qualified members of the medical profession. To this end, the Pennsylvania Medical Society will be happy to review the qualifications of those being considered for appointment to this vitally important Board.

We also urge you to seek high educational performance standards for any person practicing any branch of the healing arts. Many times persons of limited disciplines approach the Legislature with propositions that would expand their limited areas. In other words, they seek to acquire by legislation that which they have failed to gain through the education process.

The Pennsylvania Medical Society requests your careful consideration of these proposals and will be happy to discuss our views in greater detail.

11:47 pm 11:53 pm 12:06 am

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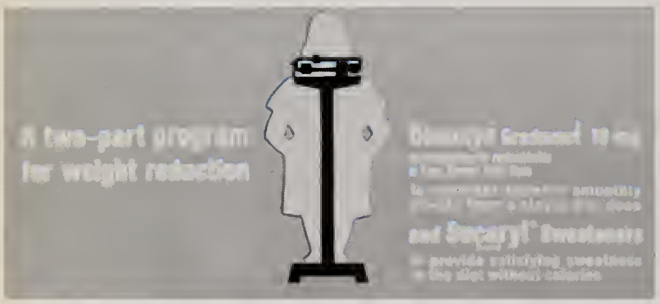

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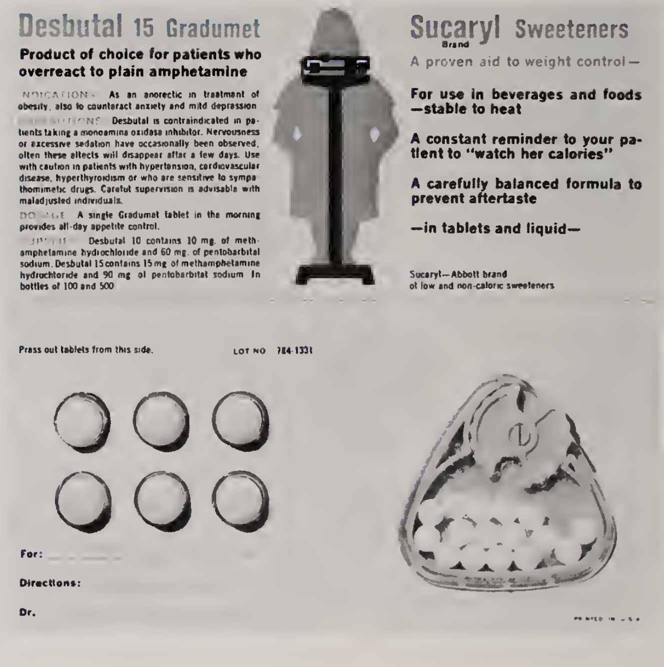

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EDITORIALS

Cost of Treatment for Nonexistent Malignancy

In the timely derogation of cytotoxic "anticancer" chemotherapy which evoked my concurrence (in the PENNSYLVANIA MEDICAL JOURNAL for May, 1965—page 68) Samuel G. Taylor, III, M.D., took waivers on such treatment of (a) the leukemia-lymphoma group, and (b) chorionepithelioma, as being justified. I now wish to enumerate reasons for including these neoplasms under the blanket interdiction:

1. It has become apparent that true leukemic cell proliferation comports with that of other cancers in that there is a depression of DNA synthesis and stem-cell division rates below that extant during normal hemopoeisis.[1] This is the theoretic objection to antimetabolite therapy. One reason for fallaciously assumed long-term present survival in acute leukemia, erroneously ascribed to antimetabolite therapy, is that the corticosteroids and tetracyclines make their therapeutic debut at the same time as do amino- and amethopterin. Protocols showing favorable response to the latter, or to 6-mercaptopurine, fail to mention the invariable concomitance or steroid and/or antibiotic.[2] In a hospital chart study of two hundred patients purporting to evince antimetabolite "remission," *I did not find a single instance* where such remission was not more properly attributable to steroid or cationic mycin.

More recently, a jarring explanation for spuriously high survival times in "leukemia" may have emerged. It appears that many patients with benign lymphoses (both leukemoid and aggregate tumor types), or myeloses, may have been diagnosed as having (and were treated for) a malignant disease which they did not have.[3, 4] Hopefully, blood cholinesterase levels—low in leukemia and high in benign leukemoid conditions—may help adjudicate all cases.[5]

2. In the instance of trophoblastic tumors, it denied that malignant chorioma was universally fatal prior to, and almost invariably controlled after the advent of, the antimetabolites.[6] Here again I can testify as to patients who, had they been left alone, and not rushed into such therapy because a hospital staff member had a grant-in-aid from the Cancer Chemotherapy National Service Center, would have done better. Malignant chorionoma is notoriously "spontaneously remissible." There also were instances where, as a pathologist, I would have designated the condition as a "mole," but where I saw it placed in the malignant category in order to give a chance to a "wonder drug."

3. The foregoing does not imply dishonesty—scientific or otherwise—on anyone's part. There are enormous pressures, however, on grant-holding investigators and on hospitals, to "build up a series," whereupon wishful thinking takes on parental dimensions. Nothing is more illustrative of this truism than what has transpired in the realm of exfoliative cervix uteri cytology. As a pathologist to a large municipal hospital with a 90 percent Negro patient census during the 1950's, I know the real incidence rate of invasive cervical carcinoma. This rate had begun to drop precipitously *prior to* the introduction of those "case-finding" forays which led to series of hysterectomies on teenage girls.[7]

Even this is not the worst consequence of the subconscious shifting of perfectly normal squamous metaplasia to a designation of "carcinoma *in situ*," and the treatment of the last artificiality as though it were actual invasive carcinoma. Coincidentally there is a shift, on no really rational grounds, to very "hard" radiative treatment for a condition that not all agree is even potentially malignant. I have performed autopsies on patients who died from complications of cobalt irradiation, but whose deaths helped swell mortality statistics on uterine carcinoma.

I may be wrong, but it appears to me that an inflated price is tagged to such therapies, and that common prudence would mitigate against known carcinogens in the treatment of dubious malignancy. The cost may be the 50 percent increase in "cancer mortality" since 1946—a 20-year period in which we have had only a 33 percent increase in population. But if I am wrong in my facts, I may at least have stimulated discussion on the subject.

ROBERT D. BARNARD, M.D.,
Lakewood, New Jersey.

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The "Cheapest" Drug

It is our belief that practitioners today face a dilemma in prescribing drugs. Elements of the lay press and certain government and welfare program administrators have become champions of the cheapest drug "that's just as good" and advocates of generic "equivalency."

What is the doctor to do when politicians start "practicing medicine"? How can he accede to prescribing the "cheapest drug" for welfare patients and still insist on drugs he knows and trusts for other patients? What is this thing called "quality control" and how does it work?

I believe the doctors' dilemma can be resolved by his "informed dissent." The Pharmaceutical Manufacturers Association has published a "white paper" entitled "The Importance of Manufacturer Identification." In its eight chapters, the review presents all aspects of why the drug from the unknown producer cannot be "just as good" but, actually, may be hazardous under life-threatening conditions. Pharmaceutical products, even those with the same principal therapeutic ingredients, differ from manufacturer to manufacturer in terms of quality and formulation, either of which may influence proper therapy. Because of this fact we truly believe that:

1. The quality-minded producer who identifies his products and promotes them under unique names or under his company name has an interest in furthering his reputation and his services to a point that goes far beyond any norms that could reasonably be established and enforced as a general system of governmental regulations, even under complete domination of the industry.

2. The overall reputation and performance of a company serve as a reliable index to the quality of its products.

3. No measures should be instituted that might abridge the physician's prerogative and responsibility to determine the proper therapy and prescribe the type and quality of medication which in his opinion will best serve the needs of his patient.

The Chairman of the Committee on Revision of the National Formulary has stated: "Many people . . . have the mistaken notion that if a product meets all the specific tests and requirements detailed for that article in the U.S.P. or N.F. monograph, then that particular product has to be perfectly satisfactory. While I wish this were true, I am sorry to say that it is not, and the nature of the problem is such that we can never hope to develop compendia monographs which will give complete assurance of any product's absolute suitability."

You will find that "The Importance of Manufacturer Identification" is a timely and useful source of material for editorials, speeches and panel discussions. If you want copies, I shall be pleased to send them.

William Kloepfer, Jr.,
Director of Public Information,
Pharmaceutical Manufacturers
Association,
1155 Fifteenth Street, N.W.,
Washington, D. C. 20005.

Nurse Exodus

Twenty-three percent of registered nursing school graduates in Pennsylvania leave the state after graduation.

This startling fact was revealed in a report on a home health care project conducted by the Pennsylvania Health Council under contract for the Pennsylvania Department of Health.

The percentage of registered nurses who left the state upon graduation varied from ninety percent at St. Joseph's Hospital, Carbondale, to one-half of one percent at Point Park College, Pittsburgh.

The information on nursing school graduates was obtained from a questionnaire sent to 105 institutions. Ninety-three responded.

The Health Department said a followup project would be necessary to ascertain the reasons for the large percentage of nurses leaving Pennsylvania after graduation.

According to the project report, there are approximately three thousand registered nurse vacancies in hospitals alone. This does not include the needs of nursing homes and other agencies in the state.

Anticipated graduates in 1967 will total approximately 3,900. However, a Health Department spokesman said, that because of expansion of staffs, retirements, deaths and persons leaving nursing for other reasons between now and next June, the state will need every graduate nurse in the Class of 1967.

The report revealed that ninety percent of the registered nurses are employed by hospitals and the remaining ten percent by nursing homes, voluntary and governmental health agencies and private industry.

The report also revealed that for every nurse graduated, 1.28 nurses must be enrolled. For example, 4,175 student nurses were initially enrolled in the 1966 class, but only about 3,260 were graduated, a decrease of 915.

Fifty-two of the nursing institutions stated that the enrolled number was the maximum limit of their training capacity, while forty-one schools indicated they could accept more students than their enrollment.

The lack of qualified faculty was given as the most common factor thirty-three institutions) limiting enrollment, with housing facilities listed by thirty-two institutions, a close second.

The purpose of the project was:

1. To test methods for obtaining the extensiton of home health care services into areas of the commonwealth where such services are presently unavailable.

2. To strengthen existing home health services in cooperation with the Pennsylvania Department of Health.

3. To determine needs and problems of existing home care agencies.

4. To locate available personnel to fill existing and anticipated vacancies.

In addition to nursing schools (registered and practical), questionnaires were sent or will be sent to qualified physical therapists, occupational therapists, medical social workers and speech therapists to identify those available to participate in home health care programs.

Contacts also were made with the Office of the Surgeon General of the U.S. Army, American Medical Association and the Pennsylvania Medical Society to obtain a list of discharged army nurses.

The project lays the groundwork for expansion of home care services throughout Pennsylvania. A Health Department spokesman pointed out that, with many hospitals operating at capacity, emphasis is being shifted to treating long-term patients in nursing homes and, where possible, in their own homes. In a home care program, the physician, or physicians, nurse, physical therapist and others visit the patient in his home.

Packaged Disaster Hospitals

A 30-day supply of critical medical items for disaster care is scheduled for placement in the nation's hospitals. A prime advantage of this new approach to massive disaster, whether brought about by weather catastrophy or by nuclear attack, is that an almost automatic rotation of limited shelf-life items can be assured. Community hospitals will use items supplied by the inventory expansion program in their daily operations and, at the same time, will continue their established rate of procurement. The 30-day inventory provided by the Health Mobilization Program would become extremely important in a disaster situation where it is almost certain that resupply to community hospitals would be disrupted.

Both the AMA and the AHA have expressed satisfaction with the redirection of the stockpile program. The American Hospital Association will assist the Division of Health Mobilization in its hospital contacts.

MEDICAL SOCIETY NEWS

Success in Hazleton

If you reside in Hazleton, Pennsylvania and do not now possess an AMA Emergency Medical Information Card, don't blame it on the members of the Ladies Auxiliary of the Fraternal Order of Police, Power City Lodge #18. Their distribution went so far as to include a card offer to all who paid traffic fines in the two-week period prior to the 4th of July.

The Medical ID cards contain spaces for personal identification, person to notify in an emergency, name, address and phone number of individual's doctor, and medical information.

The card promotion by the auxiliary was as vigorous as the winter winds which hit Hazleton, Pennsylvania's highest city. The ladies first searched for someone to finance printing of the cards (10,000 for $100). The local radio station, newspaper, a savings and loan association, a bank and a construction company combined to provide the necessary funds.

Card distribution was all encompassing. Hospitals and nursing homes gave the cards to patients; banks gave them to their customers; the YMCA and YWCA, to members; the radio station, to listeners; supermarkets, to customers at the check-out counters; the newspaper, to its employees and the public. Not forgotten were cards for the mayor and for the husbands of the auxiliary members, who were justly proud of the efforts of their wives.

Thanks to an all-out promotion in the mass media, with Mrs. Richard DiLiberto, auxiliary vice president, guiding the endeavor, a worthy health project was completed successfully. The project (a coal-cracking good one, we might add) brought wide attention to Hazleton.

The Pennsylvania Medical Society joins the AMA in lauding the community for its efforts and hopes that other communities in the state will emulate the actions of Hazleton in the distribution of Medical ID Cards.

Allegheny County Search

An important step has been taken to recruit a new director for the Allegheny County Health Department, Dr. John A. O'Donnell, chairman of the County Board of Health, announced recently.

"A Search Committee has been appointed to recommend qualified candidates for Board consideration," Dr. O'Donnell said. "We are indeed very fortunate to have serving on our committee nine outstanding health and civic leaders."

Serving as chairman of the Search Committee will be Dr. Waldo Treuting, professor and head of the department of Public Health Practice, Graduate School of Public Health, University of Pittsburgh.

With Dr. Treuting will be Mr. Philip Broughton, Special Consultant to Chief, Bureau of State Services, Washington, D. C., Dr. Merle Bundy, Medical Director, United States Steel; Dr. Edward J. Forrest, Dean, School of Dentistry, University of Pittsburgh; Dr. Berwyn F. Mattison, Executive Director of American Public Health Association, Inc., Dr. Kenneth D. Rodgers, professor and chairman of Department of Preventive Medicine, University of Pittsburgh; Dr. Gilmore M. Sanes, president of Allegheny County Medical Society; Mr. Joseph G. Smith, vice president of International Purchases and Traffic, Pittsburgh Steel and President of the Health and Welfare Association of Allegheny County; and Dr. Charles L. Wilbar, Secretary of Health, Department of Health, Commonwealth of Pennsylvania.

Dr. O'Donnell explained: "According to law, the County Board of Health is charged with the responsibility for appointing a Director for the Health Department." He added: "Physicians qualified as public health administrators are in short supply, but I am sure that the Search Committee will be diligent in their work to recommend qualified candidates for Board consideration."

Mail Call

Reader Notes Error

I read with interest your article in the August issue entitled "The World of Casper Wistar."

I wish to call your attention to one slight error. You said "In 1866, the Wistar Party ended as informally as it had begun. An era had passed."

This letter is to inform you that the Wistar Society still continues, still has its Wistar parties as it formerly did and still has a maximum membership of twenty-four members. The last Wistar party was held on July 12, 1966 and the next party is scheduled for Saturday, September 17th.

Lessing J. Rosenwald
Dean
Wistar Society

Author Replies

In preparing my article "The World of Caspar Wistar" I used, among other sources, Job R. Tyson's *Sketch of the Wistar Party* (Philadelphia: privately printed, 1898). In this work, Mr. Tyson, the official historian of the group, states that the original Wistar Party (or Wistar Association), composed of Dr. Wistar's friends and their immediate successors, went out of existence in 1866.

During the 1880's the club was resurrected as the Wistar Society with several changes, notably that members of the newer group did not have to belong to the American Philosophical Society. As a matter of fact when I first projected the article I intended to bring the story up to the present, but in light of the above information I chose to consider the present Wistar Society to be a collateral rather than a direct descendant of Dr. Wistar's group and, therefore, I did not mention it in my essay.

Irwin Richman, Chief
Science, Industry, and Technology
William Penn Memorial Museum
and Archives Building
Harrisburg

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Contraindications: Active peptic ulcer, gastritis, regional enteritis, or ulcerative colitis. Safety in pregnancy has not been established. Not recommended for pediatric age groups.
Warning: Patients who experience dizziness, lightheadedness, or feelings of detachment on INDOCIN should be cautioned against operating motor vehicles, machinery, climbing ladders, etc. Use cautiously in patients with psychiatric disturbances, epilepsy, or parkinsonism.
Precautions and Adverse Reactions: Most commonly, headache, dizziness, lightheadedness, G.I. disturbances. The C.N.S. effects are often transient and frequently disappear with continued treatment or reduced dosage. The severity of these effects may occasionally require cessation of therapy. G.I. effects may be minimized by giving the drug with food or with antacids or immediately after meals. Ulceration of the stomach, duodenum, or small intestine has been reported and, in a few instances, severe bleeding with perforation and death. Gastrointestinal bleeding with no obvious ulcer formation has also been noted; INDOCIN should be discontinued if G.I. bleeding occurs. As a result of G.I. bleeding, some patients may manifest anemia, and for this reason periodic hemoglobin determinations are recommended. Rare reports of effects not definitely known to be attributable to INDOCIN include bleeding from the sigmoid colon (either from a diverticulum or without a known previous pathologic condition), perforation of preexisting sigmoid lesions (diverticulum, carcinoma), and hematuria. In other rare cases, a diagnosis of gastritis has been made while the drug was being given. One patient developed ulcerative colitis, and another, regional ileitis, while receiving INDOCIN; when the drug was given to patients with preexisting ulcerative colitis, there was an increase in abdominal pain. Infrequently observed side effects may include drowsiness, tinnitus, mental confusion, depression and other psychic disturbances, blurred vision, stomatitis, pruritus, edema, and hypersensitivity reactions. Slight BUN elevation, usually transient, has been seen in some patients, although the preponderance of evidence indicates that INDOCIN does not adversely affect renal function, even in patients with preexisting renal disease. Nevertheless, renal function should be checked periodically in patients on long-term therapy. Leukopenia has been seen in a few patients. Transient elevations in alkaline phosphatase, cephalin-cholesterol flocculation, and thymol turbidity tests have been observed in some patients and, rarely, elevations of SGOT values; the relationship of these changes to the drug, if any, has not been established. As with any new drug, patients should be followed carefully to detect unusual manifestations of drug sensitivity. Before prescribing or administering, read product circular with package or available on request.

PMS Board Actions

The following are significant actions taken by the Board of Trustees and Councilors of the Pennsylvania Medical Society at its meeting held August 10-11, 1966:

- Created three new commissions—Commission on Drug Addiction and Alcoholism, Commission on Sports Injuries, and Commission on Traffic Safety. Each commission is to consist of six members, under the chairmanship of the Council on Scientific Advancement.

- Adopted the policy that usual and customary fees should be paid for medical services rendered to all persons either indigent or medically indigent, who are covered by government health programs.

- Named George W. Moore, M.D., Lawrence County, as Chairman, and Orlo G. McCoy, M.D., Bradford County, as a member of the 1967 Officers' Conference Committee to succeed Ralph K. Shields, M.D., Northampton County, who resigned.

- Nominated John H. Killough, M.D., Philadelphia County, and Jerome Chamovitz, M.D., Allegheny County, for three-year terms on the Convention Program Committee, and nominated James A. Collins, Jr., M.D., Montour County, for a one-year term on the same committee.

- Nominated Lewis T. Buckman, M.D., Luzerne County; William M. Cashman, M.D., Warren County; and E. Roger Samuel, M.D., Northumberland County; for a five-year term on the Judicial Council.

- Approved the recommendation of the Committee on Aid to Education that the four $500 scholarship awards made to winners of the area Science Fairs be discontinued.

- Agreed to continue library service for Society members through the Milton S. Hershey Medical Center Library.

- Upon the recommendation of the Council on Medical Service, approved changes in the health and accident and major hospital-surgical coverage underwritten by the Insurance Company of North America for members of the Society over age 65.

- Adopted a policy favoring the establishment of differential rates for malpractice insurance within the state, and authorized the Council on Medical Service to study the feasibility of establishing a group malpractice insurance program for members of the Society.

- Agreed to urge the State Department of Public Welfare to name Pennsylvania Blue Shield as its fiscal intermediary to make payments for physicians' services included under the Medical Assistance Program of Title XIX, Public Law 89-97.

- Confirmed the following appointments of President-elect McClenahan to the administrative councils for the 1966-67 Society year:

Council on Governmental Relations

Paul S. Friedman, M.D., *Chairman,* Philadelphia County
John H. Harris, Jr., M.D., *Vice Chairman,* Cumberland County
Robert J. Ayella, M.D., Huntingdon County
Robert F. Beckley, M.D., Clinton County
D. George Bloom, M.D., Cambria County
Raymond R. Curanzy, M.D., Lebanon County
Luscian W. DiLeo, M.D., Lehigh County
Stephen M. Hanson, M.D., Chester County
Richard L. Huber, M.D., Lackawanna County
William R. Hunt, M.D., Allegheny County
George W. Shaffer, M.D., Bucks County
J. Stanley Smith, M.D., Lycoming County
C. Wm. Weisser, M.D., Allegheny County

Council on Medical Service

Harry V. Armitage, M.D., *Chairman,* Delaware County
William A. Barrett, M.D., *Vice Chairman,* Allegheny County
Samuel T. Buckman, M.D., Luzerne County
Herman Bush, M.D., Beaver County
Robert P. Dutlinger, M.D., Dauphin County
Rudolph K. Glocker, M.D., Montgomery County
Edmund L. Housel, M.D., Philadelphia County
Matthew Marshall, Jr., M.D., Allegheny County
J. Eugene Ruben, M.D., Philadelphia County
Robert G. Stevens, M.D., Lycoming County
E. Buist Wells, M.D., Erie County
Ralph M. Weaver, M.D., Butler County
(One Vacancy)

Council on Public Service

John F. Hartman, Jr., M.D., *Chairman,* Erie County
Edward C. Raffensperger, M.D., *Vice Chairman,* Philadelphia County
R. William Alexander, M.D., Berks County
Walter I. Buchert, M.D., Montour County
James B. Donaldson, M.D., Philadelphia County
L. C. Eddinger, M.D., Lehigh County
Wilson C. Everhart, M.D., Dauphin County
LeRoy A. Gehris, M.D., Berks County
Charles J. H. Kraft, M.D., Wyoming County
Arthur E. Pollock, M.D., Blair County
George A. Rowland, M.D., Columbia County
Jack C. White, M.D., Chester County
Ralph C. Wilde, M.D., Allegheny County

Council on Scientific Advancement

Raymond C. Grandon, M.D., *Chairman,* Dauphin County
James A. Collins, Jr., M.D., *Vice Chairman,* Montour County
Joseph T. Freeman, M.D., Philadelphia County
John M. Keller, M.D., Montour County
Charles M. Kutz, M.D., Clarion County
Mark R. Leadbetter, M.D., Montour County
Richard B. Magee, M.D., Blair County
Gilmore M. Sanes, M.D., Allegheny County
Ralph K. Shields, M.D., Northampton County
F. William Sunderman, M.D., Philadelphia County
Charles F. Taylor, M.D., York County

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Theme: CURRENT CONCEPTS IN ETIOLOGY AND DIAGNOSIS OF CANCER

MORNING SESSION, 9:00 – 12:00 Noon

Viruses and Vaccination in Cancer
JAMES T. GRACE, JR., M.D., *Assistant Director*, Roswell Park Memorial Institute, Buffalo, New York

Carcinogenic Effects of Tobacco Usage
OSCAR AUERBACH, M.D., *Senior Medical Investigator*, Veterans Administration Hospital, East Orange, New Jersey

Carcinogenic Effects of Solar Radiation and Prevention Measures
ROBERT G. FREEMAN, M.D., *Associate Professor of Dermatology*, Baylor University College of Medicine, Houston, Texas

The Carcinogenic Hazards of Diagnostic and Therapeutic Radiation
JUSTIN J. STEIN, M.D., *Professor of Radiology and Chief, Radiation Therapy Division*, University of California Medical Center, Los Angeles, California

The Carcinogenic Hazards of Atomic Radiation
ELBERT DECOURSEY, M.D., *Director of Research*, Trinity University, San Antonio, Texas

Chemical Carcinogenesis
PAUL KOTIN, M.D., *Scientific Director for Etiology*, National Cancer Institute, Bethesda, Maryland

AFTERNOON SESSION, 1:00 – 5:00 p.m.

What Constitutes an Adequate Periodic Health Examination?
EMERSON DAY, M.D., *Director, Strang Clinic*, New York, New York

The Case For Periodic Cancer Detection Examinations
VICTOR A. GILBERTSEN, M.D., *Assistant Professor of Surgery and Director*, Cancer Detection Center University of Minnesota, Minneapolis, Minnesota

An Evaluation of the Annual Checkup
THOMAS W. CLARK, M.D., *Director*, University of Pennsylvania Diagnostic Clinic, Philadelphia, Pennsylvania

Proctoscopy for Cancer Detection in Asymptomatic Patients—What Age and How Often?
ROBERT J. ROWE, M.D., Doctors Building, 3707 Gaston Avenue, Dallas, Texas

The Barium Enema in Cancer Checkups—Indications and How Often?
ROBERT D. MORETON, M.D., *Assistant to the Director and Professor of Radiology*, The University of Texas, M.D. Anderson Hospital and Tumor Institute, Houston, Texas

The Pap Smear—What Technique and How Frequent?
W. A. D. ANDERSON, M.D., *Chairman, Department of Pathology*, University of Miami School of Medicine, Coral Gables, Florida

Present Role of Cytology in Cancer Detection (exclusive of Uterine Cancer)
WILLIAM M. CHRISTOPHERSON, M.D., *Professor and Chairman, Department of Pathology*, University of Louisville School of Medicine, Louisville, Kentucky

Mammography for the Detection of Breast Lesions
ROBERT L. EGAN, M.D., *Chief, Mammography Section*, Emory University Clinic, Altanta, Georgia

Thermography and Zerography in Breast Diseases
JACOB GERSHON-COHEN, M.D., *Director, Department of Radiology*, Albert Einstein Medical Center, Northern Division, Philadelphia, Pennsylvania

Lymphangiography in the Diagnosis of Cancer
HARRY W. FISCHER, M.D., *Director of Radiology*, Wayne County General Hospital, Eloise, Michigan

The Use of Radioisotopic Agents in the Diagnosis of Cancer
NORMAN B. ACKERMAN, M.D., PH.D., *Assistant Professor of Surgery*, Boston University Medical Center, University Hospital, Boston, Massachusetts

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PENNSYLVANIA CANCER FORUM PAGE—presented cooperatively by the Council on Scientific Advancement of the Pennsylvania Medical Society, the Philadelphia and Pennsylvania Divisions of the American Cancer Society, and the Cancer Control Section, Pennsylvania Department of Health.

1966 RESOLUTIONS

Resolutions to be considered by the House of Delegates, presented to familiarize all Society members with the proposals or policies the county societies plan to have presented to the House at the 1966 Session.

The House of Delegates will convene at 3:00 P.M., in the Pittsburgh Room of the Penn-Sheraton Hotel, Pittsburgh, Pennsylvania, on October 9, 1966.

RESOLUTION NO. 66-1

(Referred to Reference Committee on Medical Service)

Subject: *Pennsylvania Medical Assistance Program*

Introduced by: L. A. Gehris, M.D., in behalf of the Berks County Medical Society

WHEREAS, The Commonwealth of Pennsylvania has instituted a Medical Assistance Program (MA) superseding the old state Medical Assistance for the Aged and Purchase of Hospital Care programs, in order to cover the medical care for the needy of all ages in Pennsylvania; and

WHEREAS, This program was made possible by "Title 19" of the Federal "Medicare" law; and

WHEREAS, The Federal Medicare Law provides a fee for payment to physicians for recipients of "Medicare" indicated as "a reasonable fee"; and

WHEREAS, The present fee schedule for professional services rendered to the MA recipients in Pennsylvania is the fee schedule presently established by the Pennsylvania Department of Welfare for the care of the indigent, with an increase up to the present Plan A Blue Shield fee schedule under consideration by the Pennsylvania state legislature; and

WHEREAS, The Federal Medicare Law makes mandatory that a "reasonable fee schedule" be established by the Commonwealth of Pennsylvania by the year 1970; therefore be it

Resolved, That the Pennsylvania Medical Society increase its past acknowledged efforts to correct this deficiency by using every means within the law to immediately bring about payment of a "reasonable fee" for services rendered by physicians to recipients of medical care under the Pennsylvania Medical Assistance Program.

RESOLUTION NO. 66-2

(Referred to Reference Committee on Standing and Special Committees)

Subject: *Volunteer Joint Dues Billing*

Introduced by: James W. Minteer, M.D., in behalf of Elk-Cameron County Medical Society

WHEREAS, The House of Delegates of the American Medical Association has recommended a 100 percent team membership; and

WHEREAS, If this plan were adopted in Pennsylvania we can see where the Auxiliary would be of more value to the Medical Society because the additional income would enable the Auxiliary to increase its activities; and

WHEREAS, It is recommended that this be started on the county level in the Pennsylvania Medical Society; and

WHEREAS, It is recommended that the following procedure be followed on the county level; therefore be it

Resolved, That Medical Society Presidents invite appropriate Executive Committee Members to have lunch with three representatives from the Auxiliary at a location convenient for the busy physicians. State in the invitation that the purpose of the meeting is to discuss a matter of vital importance to the future effectiveness of the Auxiliary. This meeting could be planned for a period of one hour; and be it further

Resolved, That the Pennsylvania Medical Society give its sanction to the support of "Volunteer Joint Billing" regarding dues of both the State Society and its Auxiliary with emphasis on the county level.

RESOLUTION NO. 66-3

(Referred to Reference Committee on Constitution and By-Laws)

Subject: *Qualifications for Society Officers*

Introduced by: O. K. Stephenson, M.D., in behalf of the Perry County Medical Society

WHEREAS, Maintaining the pretense that candidates do not seek office is a disservice to the Society, and

WHEREAS, It would be to the Society's advantage to know the positions of avowed candidates on the issues before the Society, and

WHEREAS, A simple change in the By-laws would eliminate hypocrisy and recognize the legitimate ambitions of interested individuals to serve the Society well, therefore be it

Resolved, That the By-laws of this Society be amended by deleting Chapter IV, Section 3, which says "Any person known to have solicited votes for himself or sought after any office within the gift of this Society shall be ineligible for any office for two years."

RESOLUTION NO. 66-4

(Referred to Reference Committee on Miscellaneous Business)

Subject: *Centennial of the Butler County Medical Society*

Introduced by: Ralph M. Weaver, M.D., in behalf of Butler County Medical Society

WHEREAS, The Butler County Medical Society has made and will continue to make worthy contributions to the health and welfare of Butler County and to organized medicine of Pennsylvania; and

WHEREAS, On November 3, 1966, the Butler County Medical Society will celebrate the one hundredth year of its founding; therefore be it

Resolved, That this House of Delegates recognize this milestone in the history of the Butler County Society by placing this resolution in the official proceedings of this organization, and by extending congratulations and good wishes to the Butler County Medical Society.

RESOLUTION NO. 66-5

(Referred to Reference Committee on Governmental Relations)

Subject: *Veterans' Benefits for Non-Service Connected Disabilities*

Introduced by: Patrick J. McDonough, M.D., in behalf of Allegheny County Medical Society

WHEREAS, Title 18 of the Medicare Act has made all veterans over 65 able to afford community medical care, and

WHEREAS, Title 19 of medicare will make all veterans under 65 able to afford community medical care after June 30, 1967, and

WHEREAS, Medical care for veterans for non-service connected disabilities has been provided for those who could certify they could not afford the medical care; therefore be it

Resolved, That the Pennsylvania Medical Society request the American Medical Association to urge the Veterans Administration to begin immediate arrangements to adapt to an anticipated reduction in patient load since care for non-service connected disabilities of indigent veterans can be provided for in community hospitals under Title 19 of Public Law 89-97.

RESOLUTION NO. 66-6

(Referred to Reference Committee on Governmental Relations)

Subject: *Relations between Medicine and Optometry*

Introduced by: Patrick J. McDonough, M.D., in behalf of Allegheny County Medical Society

WHEREAS, Diagnosis and treatment of disease or injury of the eyes or bodily ailments which cause eye symptoms constitutes the practice of medicine; and

WHEREAS, Optometrists are not trained or licensed to diagnose or treat medical eye conditions; and

WHEREAS, Vision testing constitutes an important phase of medical eye examinations; and

WHEREAS, Some aggressive optometrists and optometric organizations within the Commonwealth of Pennsylvania, and in other states, have initiated or encouraged legislation involving eye examinations which would restrict appropriate vision examinations by physicians or their supervised assistants, or which would permit optometrists to engage in the diagnosis or treatment of disease or injury to the eye; therefore be it

Resolved, That the Pennsylvania Medical Society actively oppose as detrimental to public interest any proposed legislation that would authorize optometrists to engage in diagnosis or treatment of diseases of the eyes or would restrict vision examination by physicians or their properly supervised assistants; and be it further

Resolved, That the practice of optometrists continue to be limited to the present scope of the optometric act.

RESOLUTION NO. 66-7

(Referred to Reference Committee on Governmental Relations)

Subject: *Standards for Hospitals Receiving Federal Funds*

Introduced by: Patrick J. McDonough, M.D., in behalf of Allegheny County Medical Society

WHEREAS, The American Medical Association and the Department of Health, Education, and Welfare have endorsed the concept that community hospitals should meet a standard similar to the standards of the Joint Commission of Accreditation by having functioning utilization committees; and

WHEREAS, The per diem system of measuring the cost of federal hospital care tends to promote less active care for longer periods of time; and

WHEREAS, There is an obvious need for efficient use of medical and paramedical personnel and facilities; therefore be it

Resolved, That the Pennsylvania Medical Society seek federal legislation to require all hospitals receiving federal funds to meet standards no lower than those required for hospitals participating in medicare; and be it further

Resolved, That the Bureau of the Budget be requested to modernize the cost accounting system of federal hospitals in order that economy and efficiency in patient care be recognized.

RESOLUTION NO. 66-8

(Referred to Reference Committee on Constitution and By-Laws)

Subject: *Date for Allocation of Delegates and Alternate Delegates*

Introduced by: George P. Rosemond, M.D., in behalf of the Philadelphia County Medical Society

WHEREAS, The present Constitution (Article VI, Section 2) of the Pennsylvania Medical Society provides that the allocation of Delegates and Alternate Delegates from each Component County Medical Society is based on the number of active members reported as of March 31 of each year; and

WHEREAS, The By-laws (Chapter 9, Section 2) of the Pennsylvania Medical Society provide that delinquency notices be sent by the Pennsylvania Medical Society within a period of sixty days after March 1; and

WHEREAS, Payments of dues during the month of April may result in a County Medical Society being entitled to an additional delegate (and two alternate delegates) to the Pennsylvania Medical Society; therefore be it

Resolved, That the Constitution of the Pennsylvania Medical Society be amended as recommended by the Standing Committee on Constitution and By-laws to provide that the allocation of Delegates and Alternate Delegates from each component County Medical Society shall be based on the number of active members reported to the Pennsylvania Medical Society as of December 31 of the preceding calendar year.

RESOLUTION NO. 66-9

(Referred to Reference Committee on Governmental Relations)

Subject: *Medical Practice Act to Define Psychotherapy*

Introduced by: George P. Rosemond, M.D., in behalf of the Philadelphia County Medical Society

WHEREAS, There is a need for clarifying the qualifications of persons capable of doing psychotherapy; and

WHEREAS, The present Medical Practice Act of Pennsylvania does not clearly define all forms of psychotherapy as the practice of medicine; and

WHEREAS, In order to clearly differentiate the professional role of the physician and other persons now doing psychotherapy, there is a need to define psychotherapy as the practice of medicine; and

WHEREAS, The Attorney General of Pennsylvania has admitted that he is unable to enforce psychotherapy as the practice of medicine, since psychotherapy is not clearly defined in the Medical Practice Act of the practice of medicine; therefore be it

Resolved, That the Pennsylvania Medical Society go on record stipulating that psychotherapy, psychoanalysis and hypnotherapy are the practice of medicine and should only be undertaken by doctors of medicine, or by properly trained individuals working under the direct supervision of a doctor of medicine; and be it further

Resolved, That the Pennsylvania Medical Society take proper steps to effect the amendment of the present Medical Practice Act of Pennsylvania so that the intent of this resolution is embodied therein.

RESOLUTION NO. 66-10

(Referred to Reference Committee on Scientific Advancement)

Subject: *Additional Air-Pollution Control*

Introduced by: George P. Rosemond, M.D., in behalf of the Philadelphia County Medical Society

WHEREAS, There is growing evidence that severe air pollution is associated with increased morbidity and mortality rates; and

WHEREAS, Abnormal concentration of certain air pollutants is associated with increased symptoms of various diseases, although not causing obvious immediate harm to the public; and

WHEREAS, Continued exposure by the public to certain air pollutants will result in permanent physical harm and disability; and

WHEREAS, Pollution of the air can be controlled and decreased by active control measures; and

WHEREAS, The Pennsylvania Legislature has passed legislation for the control of pollution; and

WHEREAS, This legislation has not yet been implemented; therefore be it

Resolved, That the Pennsylvania Medical Society recommend to the State Legislature that this legislation be implemented to provide for more active control measures aimed towards inducing industry, automobile owners, and other persons responsible for air pollution, to take effective measures to decrease or eliminate such pollution; and be it further

Resolved, That the Pennsylvania Medical Society offer its full support in the implementation of this important public health program.

RESOLUTION NO. 66-11

(Referred to Reference Committee on Reports of Standing and Special Committees)

Subject: *Dues for Woman's Auxiliary*

Introduced by: George P. Rosemond, M.D., in behalf of the Philadelphia County Medical Society

WHEREAS, It is the desire of the members of the Pennsylvania Medical Society that a vigorous and active Woman's Auxiliary be maintained; and

WHEREAS, To accomplish this purpose the membership of the Woman's Auxiliary should be numerically increased; and

WHEREAS, Separate billing for its dues by the Woman's Auxiliary is in itself both cumbersome and expensive; therefore be it

Resolved, That the Pennsylvania Medical Society strongly urge each component county medical society to include the dues of the Woman's Auxiliary on its bill for membership dues; and be it further

Resolved, That the payment of such Woman's Auxiliary dues shall be on a voluntary basis.

RESOLUTION NO. 66-12

(Referred to Reference Committee on Governmental Relations)

Subject: *Department of Mental Health*

Introduced by: George P. Rosemond, M.D., in behalf of the Philadelphia County Medical Society

WHEREAS, The problem of mental health is assuming growing importance; and

WHEREAS, Legislation is now pending in the State Legislature covering a comprehensive Mental Health/Mental Retardation Plan; and

WHEREAS, The passage of such legislation will result in an expansion of the mental health program of Pennsylvania; and

WHEREAS, Such expansion will require proper implementation to insure its greatest effectiveness; and

WHEREAS, There is an urgent need to place the problem of mental health in the forefront of the activities of the Commonwealth of Pennsylvania; and

WHEREAS, This can best be accomplished by the establishment of a separate Department of Mental Health within the executive branch of the state government, where it will receive proper recognition, direction, and emphasis; therefore be it

Resolved, That the House of Delegates of the Pennsylvania Medical Society recommend that a separate Department of Mental Health be established within the executive branch of the government of the Commonwealth of Pennsylvania, and the present responsibilities for mental health be transferred to it from the Department of Public Welfare; and be it further

Resolved, That the Pennsylvania Medical Society take the proper steps to effect the establishment of a separate Department of Mental Health within the framework of the state government.

RESOLUTION NO. 66-13

(Referred to Reference Committee on Scientific Advancement)

Subject: *Drug Addiction and Alcoholism*

Introduced by: George P. Rosemond, M.D., in behalf of the Philadelphia County Medical Society

WHEREAS, The House of Delegates of the Pennsylvania Medical Society at its 1965 session approved the appointment of a consultant to coordinate existing information relating to drug addiction and alcoholism; and

WHEREAS, It has been found difficult to secure the services of such a consultant; and

WHEREAS, The problem of drug addiction and alcoholism is a growing one; and

WHEREAS, Organized medicine should concern itself immediately with this problem; therefore be it

Resolved, That the House of Delegates of the Pennsylvania Medical Society support the creation of a commission to function under the Council on Scientific Advancement for the purpose of giving its continued attention to the problem of drug addiction and alcoholism; and be it further

Resolved, That this commission shall submit a report through the Council on Scientific Advancement to the House of Delegates of the Pennsylvania Medical Society at the next session with respect to its findings and recommendations.

RESOLUTION NO. 66-14

(Referred to Reference Committee on Constitution and By-Laws)

Subject: *By-law Amendments Regarding the Nomination and Election of Vice-Presidents, Delegates and Alternate Delegates*

Introduced by: William A. Barrett, M.D.

WHEREAS, Present By-laws direct the election of delegates to the American Medical Association on a plurality basis; and

WHEREAS, This method may result in a popularity contest rather than choice on a basis of ability; and

WHEREAS, This method may result in the elimination of capable delegates of great value to the Pennsylvania Delegation; and

WHEREAS, The Committee to Nominate Delegates has not always attended caucuses of the delegates at AMA meetings of late, and therefore may not be familiar with the various delegates' activities and potentials; and

WHEREAS, The offices of Vice-Presidents, Delegates and Alternate Delegates to the AMA are honorable and important to this Society; and

WHEREAS, The casting of only one vote for one member on a panel of three or more gives to that one member an unfair advantage when more than one is to be elected; therefore be it

Resolved, That the By-laws be amended as follows: (Notation—delete the words in parenthesis and add the italicized words):

A. Page 11, Chapter IV, Section 1

"All elections shall be by ballot of the House of Delegates and a majority of *the* votes cast shall be necessary to elect *each candidate* (except that Delegates and Alternates to the American Medical Association and Vice-Presidents shall be elected by plurality vote)."

Nominations for each office of Vice-President—First, Second, Third and Fourth, shall be made in order and voted upon without relation to the others.

In addition to the nominations for Delegates and Alternate Delegates presented by the Committee to Nominate Delegates, the Speaker of the House shall ask for nominations from the floor for each office of Delegate and Alternate Delegate, e.g., Delegate #1, Alternate Delegate #4, et cetera. Each office of Delegate and Alternate Delegates shall be voted upon without relation to the others.

B. Page 18, Article XIV, Section 2(g), line 9

"It shall be the duty of this Committee *after consultation with the Chairman of the Delegation and others familiar with the proceedings of the AMA House of Delegates,* to submit to (the) *this* House of Delegates a list of nominees, et cetera."

RESOLUTION NO. 66-15

(Referred to Reference Committee on Medical Service)

Subject: *The Right to Bill Patients—Title XIX of Public Law 89-97*

Introduced by: Patrick J. McDonough, M.D.

WHEREAS, Many segments of medicine have endorsed the policy that physicians bill their patients directly under Public Law 89-97, rather than accepting assignments and billing the agent; and

WHEREAS, Several states are planning to implement said Title XIX in part, by expansion of Kerr-Mills benefits; and

WHEREAS, The American Medical Association House of Delegates, in June, 1966, urged that each society work early and diligently in its own state to the end that any plan or enabling law developed by the states to qualify as a Title XIX program authorize direct billing procedures; therefore be it

Resolved, That the Pennsylvania Medical Society use its influence to secure the same right in the expansion of said Kerr-Mills and implementation of Title XIX, i.e., the right to bill their own patients, who in turn shall secure reimbursement from the State or its agents; and be it further

Resolved, That when the physician elects not to receive an assignment from government agencies or authorized carriers, he and his patient alone shall determine the amount of the bill and the State may set the fee only when the physician accepts an assignment.

RESOLUTION NO. 66-16

(Referred to Reference Committee on Miscellaneous Business)

Subject: *To Guard Against Discrimination in Organized Medicine*

Introduced by: Hunter S. Neal, M.D., in behalf of the Delaware County Medical Society

WHEREAS, The Delaware County Medical Society reaffirms that race, creed, or color have no place in the criteria for full membership in medical organizations; and

WHEREAS, The American Medical Association has repeatedly reaffirmed this principle including Paragraph 10 of Section 4 of the AMA Code of Ethics which states that "The American Medical Association calls upon all state medical associations, all component societies, and all individual members of the American Medical Association to exert every effort to end every instance in which such equal rights, privileges, or responsibilities are denied"; and

WHEREAS, Any action which the American Medical Association could take would have to be based upon evidence of discrimination; therefore be it

Resolved, That the Pennsylvania Medical Society delegates to the American Medical Association introduce an appropriate resolution to direct the AMA, through its Department of Investigation, to make the necessary inquiry to ascertain evidence of such discrimination and report back to the House of Delegates through the Judicial Council appropriate recommendations for action to eliminate 1) restrictive covenants whether written into the component county medical society's rules and by-laws or 2) defacto discriminatory practices in component or constituent associations.

RESOLUTION NO. 66-17

(Referred to Reference Committee on Medical Service)

Subject: *Philadelphia Blue Cross Policy*

Introduced by: Hunter S. Neal, M.D., in behalf of the Delaware County Medical Society

WHEREAS, Blue Cross of Greater Philadelphia has entered into contractual agreements with its subscribers to pay certain costs for periods ranging between 30 and 120 days when hospitalization is necessary for the treatment of illness; and

WHEREAS, The duration of such hospitalization depends on the judgment of the physician treating the patient; and

WHEREAS, The number and type of laboratory and other diagnostic procedures ordered are also a matter of judgment of the treating physician; and

WHEREAS, The Associated Hospital Service of Philadelphia has on repeated occasions refused to pay for full length hospitalization and certain laboratory tests when it believes that hospitalization was unduly prolonged or that unnecessary laboratory work was ordered; therefore be it

Resolved, That the Pennsylvania Medical Society go on record as condemning arbitrary decisions by Blue Cross of Greater Philadelphia concerning the length of hospitalization required in specific instances and of the propriety of laboratory or other diagnostic procedures when ordered during the treatment of an illness; and be it further

Resolved, That Blue Cross of Greater Philadelphia be requested to fulfill within the limits of its contracts its agreements with subscribers and hospital irrespective of length of hospitalization and laboratory tests ordered.

RESOLUTION NO. 66-18

(Referred to Reference Committee on Public Service)

Subject: *Appointment of Committee on Paramedical Affairs*

Introduced by: Joseph N. Aceto, M.D.

WHEREAS, Considerable importance is being given to the recruitment, training, and placement of paramedical personnel, including a Federal Allied Health Professions Bill, amounting to the provision of $155 million for a three-year program; a trend toward a greater medical school, and junior college effort in this direction; and the action of the AMA Board of Trustees in appointing a Committee on Health Manpower; and

WHEREAS, Dr. William B. West, President of the Pennsylvania Medical Society, included a recommendation for the "establishment of higher educational performance standards for any person practicing any branch of the healing arts", among those given to the Republican Platform Committee for the State of Pennsylvania; and

WHEREAS, Although many state specialty organizations have long worked with the problem in their own areas of interest, there remains a lack of a central source of standardization of requirements and training, and of systematized information for school guidance counsellors, legislators and, even the rank and file members of the Pennsylvania Medical Society; and

WHEREAS, There is a real risk of this area of interest to the medical profession moving rapidly under the guidance and control of nonmedical agencies, unless such guidance be provided by the profession; and

WHEREAS, Despite the adoption of Resolution 65-1 as amended, by the House of Delegates, there has been only little implementation by the administrative staff of the Society, probably due mainly to a lack of accentuation to this staff of the depth of the problem and the importance of its vigorous, complete, and rapid implementation; therefore be it

Resolved, That the President of the Pennsylvania Medical Society appoint an Ad Hoc Committee on Paramedical Affairs to accelerate achievement of the goals of Resolution 65-1, and that among the membership of this committee be included representatives of the state specialty societies that deal directly, and in large part, with this area of the allied health professions.

RESOLUTION NO. 66-19

(Referred to Reference Committee on Public Service)

Subject: *Publication of "Hospital Physician"*

Introduced by: Joseph N. Aceto, M.D.

WHEREAS, A segment of our Society Membership is resisting their being completely absorbed within the area of rendering "hospital services", mainly Radiologists, Pathologists, Anesthesiologists and Physiatrists; and

WHEREAS, Other practitioners of the Medical Profession could be increasingly so categorized; and

WHEREAS, Control of the profession could most easily be done by their first being controlled by the hospitals, and through these, by the Federal Government; and

WHEREAS, The resistance to this can be sustained by maintaining a strong link with nonhospital-based members of the Pennsylvania Medical Society, and, conversely, not allowing the segmentation of hospital-based practice from the mainstream of medicine; and

WHEREAS, "Hospital Physician", a publication of Medical Economics, has recently come into being, and is described on the back of the July, 1966 Quarterly Supplement to the "Physicians' Desk Reference", as "Magazine for Managers of Medical Care in Hospitals", and by tone and content implies an outlook and interest on the part of "Hospital Physicians", separate and distinct from their colleagues who are not hospital-based, and who receive the parent publication, "Medical Economics"; and

WHEREAS, A lack of concerted protest would continue to give tacit approval to this apparent assumption of "separateness" on the part of the laity; therefore be it

Resolved, That the Pennsylvania Medical Society request the publishers of Medical Economics to discontinue the publication of "Hospital Physicians", and include significant articles regarding hospital-based practices in the parent publication, which should be sent to all physicians; and be it further

Resolved, That the Pennsylvania Medical Society enlist the aid of the American Medical Association and advertising pharmaceutical firms in this endeavor.

RESOLUTION NO. 66-20

(Referred to Reference Committee on Scientific Advancement

Subject: *Clarification and Revision of the Laws of the Commonwealth in regard to sterilization, abortion and contraception*

Introduced by: Kenneth L. Cooper, M.D., in behalf of the Lycoming County Medical Society

WHEREAS, The Laws of the Commonwealth of Pennsylvania in regard to sterilization, abortion and contraception were enacted over one hundred years ago; and

WHEREAS, Present medical knowledge has proven the hazards of certain diseases of the mother upon the recently conceived foetus, and has proven the hazards of the ingestion of certain drugs by the mother upon such a foetus; and

WHEREAS, Present medical and surgical techniques, as well as community opinions, have changed greatly in the past ten decades, in regard to sterilization, therapeutic abortion and contraception; therefore be it

Resolved, That the Council on Governmental Relations of the Pennsylvania Medical Society be instructed to prepare—after consultation with appropriate medical, legal and religious authorities—appropriate legislation for submission to the General Assembly of the Commonwealth of Pennsylvania; such measures to clearly define the conditions under which sterilization and therapeutic abortion may be performed lawfully, and the conditions under which contraceptive measures may be prescribed lawfully.

RESOLUTION NO. 66-21

(Referred to Reference Committee on Public Service)

Subject: *Teaching Health Education in Technical High School*

Introduced by: Paul L. Bradford, M.D., in behalf of the Montgomery County Medical Society

WHEREAS, The Commonwealth of Pennsylvania has begun a program of technical education at the high school level; and

WHEREAS, There are large opportunities for high school graduates in paramedical jobs, with little or no training beyond this point; and

WHEREAS, These opportunities are expanding rapidly, but vary widely from community to community; and

WHEREAS, There is evidence that freedom in curricula development has been hampered by uniform state-wide regulations; therefore be it

Resolved, That the Pennsylvania Medical Society urge the Department of Public Instruction to encourage health education programs and curricula in the new technical high schools, and to modify regulations so as to allow the greatest local leeway in such curricula.

RESOLUTION NO. 66-22

(Referred to Reference Committee on Governmental Relations)

Subject: *Hospital Immunity*

Introduced by: Pascal F. Lucchesi, M.D., in behalf of the Philadelphia County Medical Society

WHEREAS, A recent Pennsylvania Supreme Court decision has declared that hospitals are not immune to liability in damages for injuries resulting from negligence in professional or other services rendered by employees; and

WHEREAS, This court decision is in direct conflict with previous judicial recognition that hospitals as non-profit and charitable institutions should be immune from such liability; and

WHEREAS, This court decision has the effect of encouraging suits against hospitals, many of such suits having no factual basis; and

WHEREAS, The liability of hospitals arising from adverse verdicts in such suits has a serious effect on their public image and their financial operations; and

WHEREAS, The necessity for hospitals to defend themselves against such suits increases their cost of operation, thereby increasing the cost of patient care which is passed on to patients; therefore be it

Resolved, That the Pennsylvania Medical Society consider the introduction and support of legislation in the General Assembly of Pennsylvania to restore the charitable immunity of hospitals against liability in damages for alleged injuries resulting from alleged negligence in professional or other services rendered by employees.

RESOLUTION NO. 66-23

(Referred to Reference Committee on Medical Service)

Subject: *Hospital Outpatient Services*

Introduced by: Pascal F. Lucchesi, M.D., in behalf of the Philadelphia County Medical Society

WHEREAS, The cost of outpatient services rendered by hospitals has been constantly increasing; and

WHEREAS, The fees presently received from patients and/or their third party payors for such services do not cover this cost; and

WHEREAS, This inadequate reimbursement places a severe financial burden on the hospitals, which must seek other sources of income to meet this deficit; and

WHEREAS, Under Title XIX of P.L. 89-97, Pennsylvania's Medical Assistance program after July 1, 1967 will have to include as one of the benefits hospital outpatient service for the medically needy as well as the needy; and

WHEREAS, Title XIX of P.L. 89-97 requires state payment of "reasonable cost" after July 1, 1967, for hospital inpatient service under the State's Medical Assistance program; and

WHEREAS, Present state payments to hospitals for outpatient care rendered to public assistance patients only do not begin to meet the test of "reasonable cost"; therefore be it

Resolved, That the Pennsylvania Medical Society requests the Governor and the General Assembly of Pennsylvania to consider this problem and to include payment of "reasonable cost" to hospitals for outpatient care rendered to the needy and medically needy under the State's Medical Assistance program after July 1, 1967.

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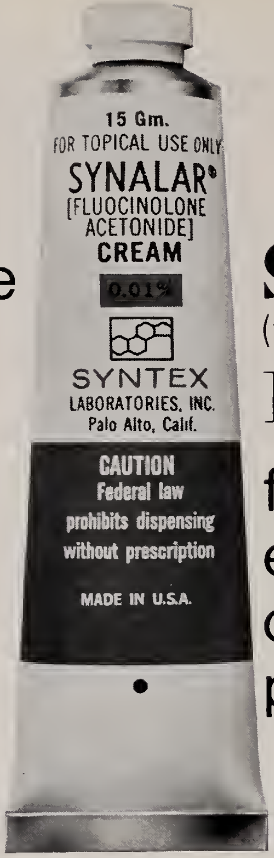

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areas, systemic absorption of the corticosteroid may occur, and suital
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relapses can be expected to occur in many psoriatic patients, remissic
may persist for several weeks to several months in favorable cases. T
patient whose psoriasis is in an active stage, with recent appearance of n
lesions, may not be a good candidate and may show early relapse. So
plastic films may be flammable, and due care should be exercised in th
use. Similarly, caution should be employed when such films are used on
left near children to avoid the possibility of accidental suffocation. **S**
Effects: Side effects are not ordinarily encountered with topically appli
corticosteroids. As with all drugs, however, a few patients may react u
vorably to Synalar under certain conditions. **References:** 1. Cahn, M. M.,
Levy, E. J.: J New Drugs 1:262 (Nov.-Dec.) 1961. 2. Meenan, F. O.: J I
Med Ass 52:75 (Mar.) 1963. 3. Robinson, H. M., Jr., Raskin, J., and Dunse
W. J. R.: Southern Med J 56:797 (Jul.) 1963.

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- **HOURS:** Exhibits will be located on the seventeenth floor of the Penn-Sheraton Hotel. Hours—Monday and Tuesday, October 10 and 11, 9:30 A.M.- 5:15 P.M., and Wednesday, October 12, 9:30 A.M.- 4:30 P.M.

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The Coca-Cola Company	32
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Lederle Laboratories	31
Lemmon Pharmacal Company	22
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Mead Johnson Laboratories	17
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Merck Sharp & Dohme	45
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Upjohn Company	28
U.S. Vitamin & Pharmaceutical Corporation	26
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Wyeth Laboratories	5

Scientific Exhibits —

S-2 Medico-Legal Examinations, Reports, and Testimony, Evert J. Gordon, M.D., Sibley Memorial Hospital, Washington, D. C.

S-3 Hearing Conservation, James M. Cole, M.D., P. John Hagan, M.D., and R. S. Asby, M.S., Geisinger Medical Center, Danville.

S-4 Primary Prevention of Rheumatic Fever, Mr. John Gould, Pennsylvania Heart Association and Allegheny County Health Department.

S-5 Adverse Reactions to Drugs and Other Chemicals, Norman De Nosaquo, M.D., and Mr. Gerry Stearns, American Medical Association, Chicago.

S-6 The GP Investigates New Drugs, Henry C. Carlson, Jr., M.D., Woman's Medical College, Philadelphia.

S-7 The Immediate Diagnosis of Pulmonary Embolus, W. Clayton Davis, M.D., John W. Maxwell, Jr., M.D., and H. Paul Newman, R.B.P., Veterans Administration Hospital, Pittsburgh.

S-8 The Use and Abuse of Anorexigenic Agents, Seymour K. Fineberg, M.D., New York Medical College, New York City.

S-9 Reactions to Drugs, Stephen D. Lockey, M.D., Lancaster General Hospital, Lancaster.

S-10 Blood Chemistry Evaluated Following the Use of a Diuretic-Hypotensive Agent, Joseph J. Kozma, M.D., Passavant Memorial Area Hospital, Jacksonville, Illinois.

S-11 Selective Bronchial Arteriography, Drs. Daniel M. Enerson, Jordan D. Haller, Klaus M. Bron, Sam Poller, and Mark H. Wholey, Veterans Administration Hospital, Pittsburgh.

S-12 Cardiopulmonary Resuscitation Exhibit, Mr. Royce Britton, Pennsylvania Heart Association, Harrisburg.

S-13 Checkups Are Worthwhile, Mrs. Marjorie Steever, American Cancer Society, Pennsylvania Division, Inc., Harrisburg.

S-14 Percutaneous Splenoportography, Aortography, and Cholangiography, Drs. Francis C. Jackson, John W. Maxwell, Jr., and W. Clayton Davis, Veterans Administration Hospital, Pittsburgh.

S-15 Family-Centered Maternity and Infant Care, Flora Hommel, R.N., International Childbirth Education Association, Inc., Milwaukee, Wisconsin.

S-16 The Inhibition of Fibrinolysis Associated with Certain Hemorrhagic States, Drs. Charles J. Masur and William M. Sweeney, and Edward De Renzo, Ph.D., Pearl River, New York.

S-17 Surgical Anatomy of the Temporal Bone, Drs. Raymond E. Jordan, Ralph J. Caparosa, and Donald H. Walker, University of Pittsburgh School of Medicine.

S-18 United Ostomy Association, Mr. Edward Claitman, Pittsburgh Ostomy Society.

S-19 Neonatal Surgery—A Fifteen-Year Survey, Drs. William B. Kiesewetter, Kamthorn Kukarochana, and William K. Sieber, Children's Hospital, Pittsburgh.

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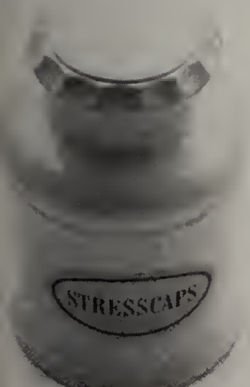

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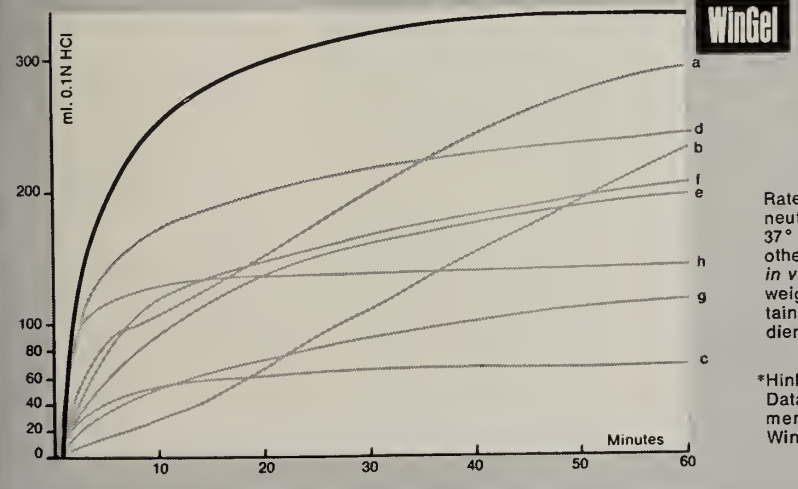

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Clinical Director—Developing 800-bed hospital containing two geographic units, infirmary geriatrics unit. Desire well-trained, analytically oriented psychiatrist as Clinical Director. Eight miles from downtown Pittsburgh, medical school, psychiatric and analytic institute; opportunities exist for faculty appointments, personal analysis, or analytic training. Requires four years in psychiatry, including two years in administrative capacity; completion of three year residency in psychiatry and eligibility for Pennsylvania licensure. Salary: $15,387-$19,664. Write ROBERT E. WEIMER, M.D., Superintendent, Dixmont State Hospital, Glenfield, Pa.

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In My Opinion . . .

Surgical Technicians' Status

In the March, 1965, issue of this journal, we predicted that through the efforts of the Pennsylvania Medical Society, the surgical technician would soon achieve the status of other technicians working in our hospitals. The then President Richard A. Kern also stated, before the 1965 House of Delegates, that the problems of the surgical technician would soon be solved.

By now, there should be definitions of surgical technicians' training, competence, and restrictions, so that they would enjoy the status of an accepted technical medical group. Where do these matters stand?

The Pennsylvania Board of Medical Education and Licensure is considering certification of certain paramedical groups—the inhalation therapy technicians, the occupational therapy technicians, and the nurse anesthetists. The Board has expressed interest in similarly qualifying the surgical technician—a proposed move which the Pennsylvania Nurses Association opposes.

As mentioned in our editorial of eighteen months ago, the American College of Surgeons is concerned with the need for technical aid in operating and emergency rooms, has requested counsel from the three nursing groups who might be concerned, and has asked them to set up basic standards. Representatives of the National League for Nursing and of the American Nurses Association have met with the Association of Operating Room Nurses. The latter organization has voted to have a special committee prepare a *Manual of Guidelines for the Training of Technicians.* But they feel that they have neither the authority nor the power to *certify* technicians.

Many if not most hospitals in Pennsylvania employ surgical technicians in their operating rooms—in fact, some could not carry out normal operative schedules *without* technicians.

During the past year, two splendid textbooks have been published, specifically designed for use in the training of technicians. There are schools in our state which give formal courses lasting from five weeks to over a year. Some technicians have no formal schooling but have been drawn from the ranks of orderlies, practical nurses, or aides—or simply have been hired, and taught how to don a mask and how to scrub. Some instructors may be splendid teachers with excellent backgrounds of operating room service, while others are nurses who know little more than do their students. Some technicians are high school graduates whose aptitudes have directed them into this valuable vocation, and who appreciate their potential hazard to the patient. Others may be high school dropouts.

A wide variety of technicians work in almost all hospital laboratories and clinical departments—a corps of workers which is the salvation of hospitals sorely pressed by manpower shortages. The scarcity of nurses would seriously hamper our nation's health care, were it not that other technically trained personnel help fill the gap. Most of these technicians—with the exception of the practical nurse and the nurse aide—are not in a position directly subordinate to the regular nurse. (Nursing has taken over the education and standardization of the practical nurse, who is devoted entirely to bedside nursing.)

The surgical technician has a special position: he or she works under the operating room nurse, who is already somewhat a stepchild of the nursing profession. It is imperative that technicians receive a carefully conceived and studiously monitored course of training, lest ineptitude cancel the tremendous advances created by modern surgical technique and nursing. Infections still occur, and many other accidents are possible in the operating room.

Just as it is difficult to define the professional nurse, it is difficult to set forth a clear, immutable definition of the surgical technician. But we *can* outline the minimal of his education, examine his capabilities for learning and for absorbing the disciplines he must observe, and define his limitations, thus safeguarding the surgically ill of our state.

The present status of the surgical technician is nil. He does not have the stature of the hairdresser, the barber—even the bartender.

This valuable, trained, dedicated person, however, who works with us day by day (and night by night), deserves recognition and a standard of excellence. Operating room supervisors and operating room nurses should demand that these be accorded the technician, and our medical and surgical conferes should see that they are.

William C. Beck, M.D., Sayre.

P.R.N.

Our small wooded thicket has always hosted the Chickadees, Titmouses, Nuthatches and Downys, along with the ever-present Cardinals and Jays. Seasonal inhabitants include the Brown Creeper, with his exquisitely pure melody; the russet brown Hermit Thrush and his varying bell-like notes; the Yellow Warbler—warbler par excellence.

Three new guests appeared this past spring; a pair of Great Crested Flycatchers, never before seen in our area; several families of Baltimore Orioles, observed "passing through" on a few previous occasions; a Swanson's Warbler, not noted as far north as Maryland until a few years ago. Additionally, flocks of Red-Winged Blackbirds, wheeling in unison, have added their aggressive gregariousness to the feathered population.

The inherent beauty and understanding friendship of the birds are welcome to our Walden, but the songs of the feathered visitors also serve to recall the dissonant notes sounded by the industry of man's world when compared to nature's. Why the many new residents—and why this past season?

Man's manipulation of his environment is a primary reason. Poisons from the intensive mosquito-eradication programs in New Jersey and Delaware have driven the Red Wings from sections of their habitat. The TVA and the Army Corps of Engineers have eliminated marshlands and valley streams with flood control projects, thereby removing forever vast areas of prime sanctuary. Florida's land boom has prompted massive diminution of swamplands accompanied by the forced migration of literally millions of birds.

And so it is. Across our nation man is succeeding in his efforts to force nature into subservience. We are rapidly creating a new "nature"—the perfect land—sterile, void of inspiration, rebuilt to specifications. I experience joy, happiness and peace when awakened each morning by the birds' songs. But there is an overshadow of sorrow because man is succeeding in his attempts to build this "perfect" land. Occasionally I wonder.

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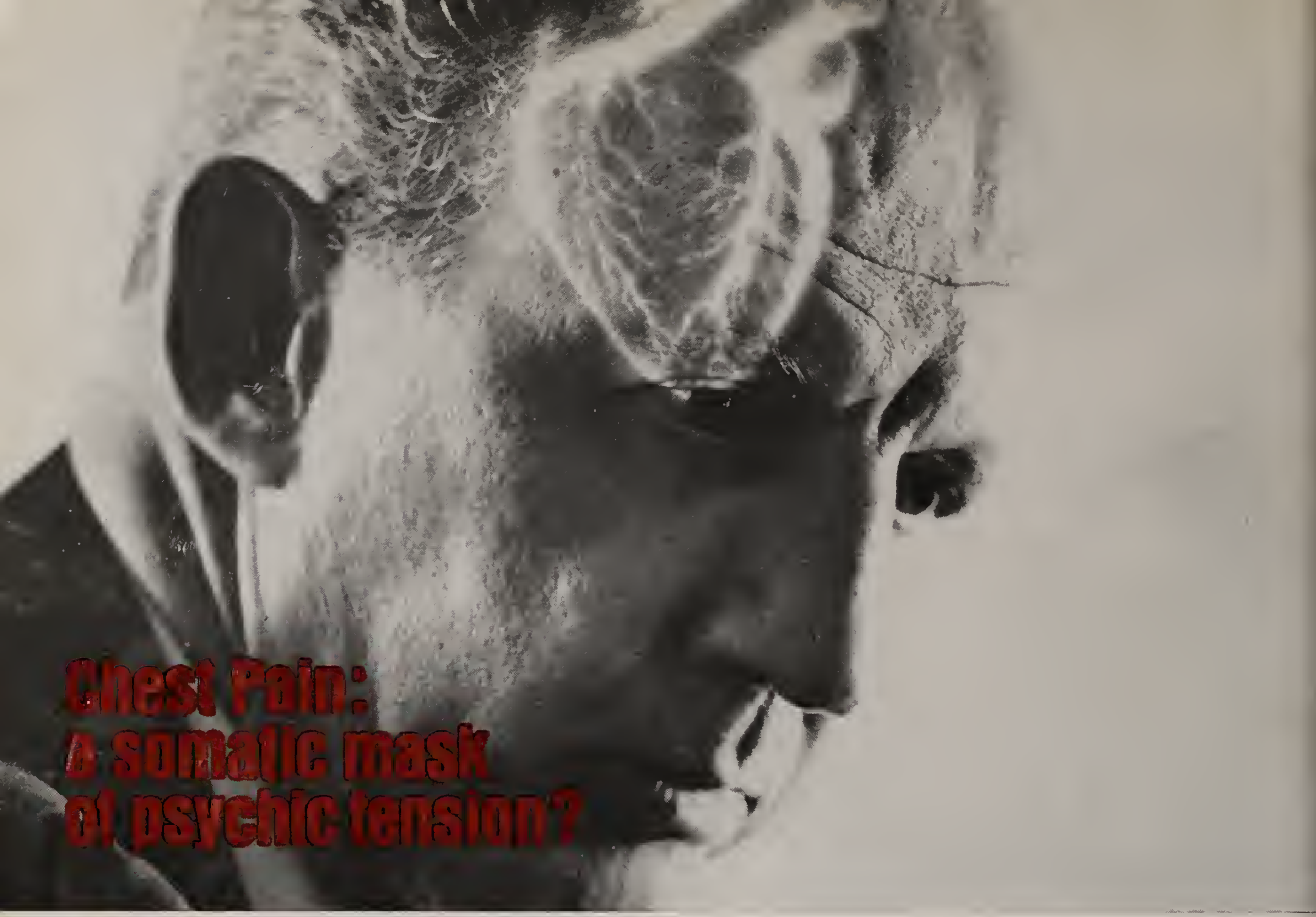

"Heart symptoms"—chest pain, tachycardia, arrhythmia—invariably alarm and preoccupy the patient, though they may be completely without organic basis. Such symptoms often are somatic masks of psychic tension, arising from constant encounters with stressful situations.

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Precautions: Limit dosage to smallest effective amount in elderly patients (not more than 1 mg, one or two times daily) to preclude ataxia or oversedation. Advise patients against possibly hazardous procedures until correct maintenance dosage is established; driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. Warn patients of possible combined effects with alcohol. Safe use in pregnancy not established. Observe usual precautions in impaired renal or hepatic function and in patients who may be suicidal; periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances and hallucinations) and changes in EEG patterns. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.

Dosage — Adults: Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hrs, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d. Geriatric patients: 1 or 2 mg/day initially, increase gradually as needed.

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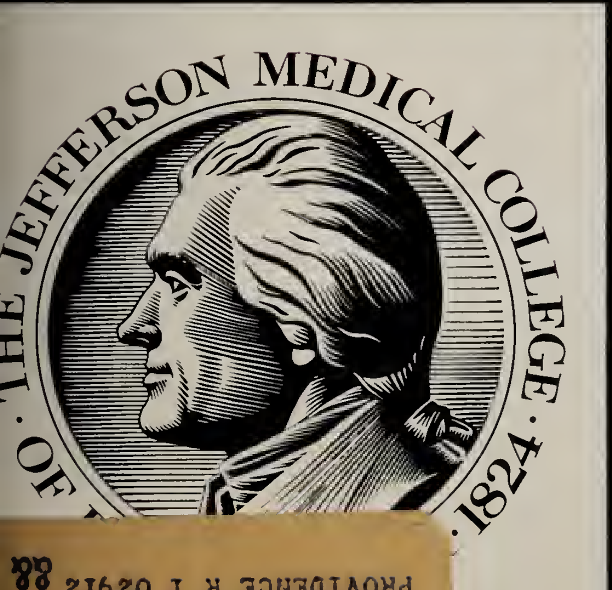

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News
HIGHLIGHTS

NOVEMBER, 1966

MENTAL HEALTH BILL TO BE EFFECTIVE JANUARY 1, 1967

■ The Mental Health and Mental Retardation Bill was signed October 20 by Governor William W. Scranton and will go into effect January 1, 1967. The signing ceremony took place in Pennsylvania Hospital, the nation's first, and the first hospital to admit and treat the mentally ill. In attendance for the ceremony were Lt. Governor Raymond P. Shafer; Legislative Sponsors of the Bill; Max Rosenn, of the Pennsylvania Department of Public Welfare; other City and State officials; and prominent members of the medical profession.

The new law can mean the end of the isolation and rejection of the mentally ill in Pennsylvania because it makes it possible for every community to establish, for the first time in the history of the Commonwealth, comprehensive services close to home. The law mandates the establishment of community mental health centers, to provide the full range of comprehensive services, including diagnosis, treatment and aftercare.

See page 14, **Pennsylvania Medicine**, October 1966 for a complete summary of the Act.

DEDICATION HIGHLIGHTED BY ELECTRONIC RIBBON-CUTTING

Officiating at the dedication ceremony marking the opening of the new PMS headquarters in Lemoyne are, from left: Reverend Doctor Sheridan Bell, pastor of Grace Methodist Church, Harrisburg; Cumberland County Commissioners Donald E. Endres and Herbert N. Jeb Stewart, and the Honorable George N. Wade, Senator, 31st District. The ribbon was cut by the electronically controlled scissors which was activated in Pittsburgh at 9:30 p.m. Wednesday, October 12, 1966 during a ceremony held simultaneously at the Penn-Sheraton Hotel, site of the PMS 1966 Annual Session.

J. Everett McClenahan, M.D., McKeesport, installed as the 117th President of the Pennsylvania Medical Society on October 12, 1966. Dr. McClenahan became Medical Director of the McKeesport Hospital in 1963, and currently holds that position as well as being a member of the hospital's senior surgical staff. Abstracts of the President's address appear on page 108.

William B. West, M.D., Huntingdon, out-going President of the Pennsylvania Medical Society. Highlights of Dr. West's address appear on page 97.

John H. Harris, Sr., M.D., Harrisburg, named President-elect of the Pennsylvania Medical Society, by acclamation at the 117th annual session. Dr. Harris has long been active in professional organizations and has served on the Council on Government Relations of the Pennsylvania Medical Society since 1957.

PUBLIC ASSISTANCE PAYMENTS INCREASED

■ Public assistance payments for nursing home care were increased last month, bringing the range of State payments for persons in private nursing homes to $170-$250 per month. Most of the public assistance recipients receiving nursing home care are in homes for which payments were increased from $190 to $210 a month.

The increases became effective in October, and will apply to an estimated 7,000 needy citizens, Secretary of Public Welfare Max Rosenn stated. In addition, 8,500 needy patients are cared for in county public nursing homes under a 50-50 Federal-County program supervised by the State Public Welfare Department.

NEXT MONTH

PROCEEDINGS, 1966 HOUSE OF DELEGATES

CARDIAC RESUSCITATION IN THE COMMUNITY HOSPITAL

The organization and implementation of a "Cardiac Resuscitation Team" in a 500-bed community hospital is described.

Controversy in TODAY'S MEDICAL EDUCATION by George T. Harrell, M.D., Dean of Hershey Medical Center, will appear in the December issue of **Pennsylvania Medicine** contrary to the previous announcement in **PM.**

TUBOPLASTY SURVEY featured on pages 64 through 66 should contain corrections which arrived after presstime. Body copy and references (pages 65 and 66) have incorrect spelling; R. J. Hamernik should read R. J. Namernik.

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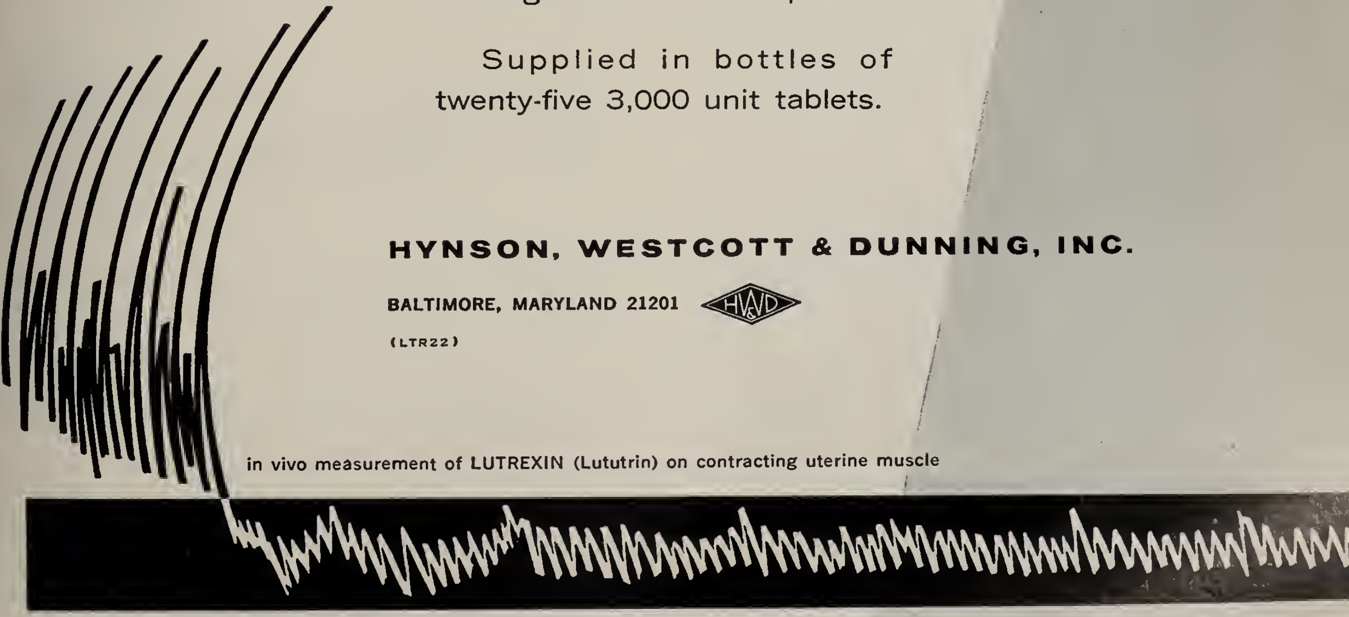

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Precautions: As with all new drugs, blood and liver function tests are advisable during prolonged treatment. **Pending further experience, like most chemotherapeutic agents, this drug should not be given in the first trimester of pregnancy. It must be used cautiously in patients with liver disease or severe impairment of kidney function.** Because photosensitivity reactions have occurred in a small number of cases, patients should be cautioned to avoid unnecessary exposure to direct sunlight while receiving NegGram, and if a reaction occurs, therapy should be discontinued. The dosage recommended for adults and children should not arbitrarily be doubled unless under the careful supervision of a physician. Bacterial resistance may develop.

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References: (1) Based on 23 clinical papers, 1512 cases. Bibliography on request. (2) Bush, I. M., Orkin, L. A., and Winter, J. W., in Sylvester, J. C.: Antimicrobial Agents and Chemotherapy—1964, Ann Arbor, American Society for Microbiology, 1965, p. 722.

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*As many as 9 out of 10 urinary tract infections are now caused by gram-negative organisms: E. coli, Klebsiella, Aerobacter, Proteus, Paracolon or Pseudomonas[2]... However, infections of the urethra and prostate caused by non-gonococcal gram-negative organisms are believed to be less prevalent.

PENNSYLVANIA MEDICINE

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SQUIBB NOTES ON THERAPY

"'Tranquilizer' is not a good word"[1]

"THIS classification is psychologically too seductive, pharmacologically too unspecific, and in terms of results not infrequently untrue."[2]

What is a tranquilizer? According to the 24th Edition of Dorland's Medical Dictionary[3] a tranquilizer is "an agent which acts on the emotional state, quieting or calming the patient without affecting clarity of consciousness."

Defining a drug by its effects, however, can be misleading. The same effects by which the dictionary defines a tranquilizer have sometimes been seen after administration of a sedative — or, for that matter, a placebo.

Ambiguous though the term may be, it appears to be here to stay. The 1966 edition of the Physicians' Desk Reference[4] lists 42 tranquilizers indicated for treatment of anxiety and apprehensive states.

'Tranquilizers' have differences in action, differences in effect

Although all tranquilizers are intended to calm anxious patients there are differences in their actions — and in their effects. They have been divided into three categories — the rauwolfia group, the 'minor' tranquilizers, and the phenothiazines.[5]

Although the tranquilizing effect of rauwolfia has been known for centuries, its use as an antipsychotic agent in current practice has diminished.[5]

A 'minor' tranquilizer is often prescribed to achieve more than one effect. Thus, besides being tranquilizers some of these compounds may be muscle relaxants, antihistaminics with some calming action, anticholinergic sedatives, or antispasmodics.[5]

The phenothiazines are considered 'major' tranquilizers because they alter psychotic behavior.[1] This classification may have done them more harm than good because it implies that the phenothiazines should be reserved for the more severely disturbed. This is not necessarily true.

The phenothiazines — and the problem of sedation

One of the problems of prescribing phenothiazines for ambulatory patients has been the fear that excessive sedation will impair the patient's ability to function. This, however, is less of a problem with some of the phenothiazines.

"Clinically they may be differentiated primarily in terms of their potency and the extent of their sedative effect, which appear to be inversely proportional. That is, the least potent, the one which is used in highest dosage, chlorpromazine, is the most sedative, while the reverse holds true for fluphenazine."[6]

In a recent report on various studies conducted over several years evaluating 360 patients treated for anxiety and stress with seven phenothiazines, this inverse relationship of potency to sedation was confirmed.[7] Also under consideration was the degree to which the particular phenothiazines neutralized anxiety (the angolytic index). Interestingly enough there was, again, an inverse relationship. The most sedative of the phenothiazines appeared to be the least active in neutralizing anxiety. Fluphenazine, one of the least sedative, on the other hand, was found to be most effective in relieving anxiety.[7]

RELATIVE SEDATIVE AND ANGOLYTIC INDICES OF PRINCIPAL PHENOTHIAZINES*

DRUG	SEDATIVE INDEX	ANGOLYTIC INDEX	BASED ON STANDARD DOSE OF
Chlorpromazine	100	15	25 mgs.
Triflupromazine	100	15	25 mgs.
Thioridazine	90	17	25 mgs.
Perphenazine	15	25	4 mgs.
Carphenazine	25	25	25 mgs.
Trifluoperazine	3.3	95	2.0 mgs.
Fluphenazine	3.5	100	2.5 mgs.

*adapted from Sainz[7]

Prolixin is therapeutically effective without excessive sedation

When used as a 'tranquilizer' in general medical practice, in many patients Prolixin (Squibb Fluphenazine Hydrochloride) suppresses anxiety, but not normal activity. These two features are of particular importance to patients who must be able to live and work without their normal daily activities being restricted.

Because of its longer duration of action, Prolixin, in doses of as little as one to three milligrams in adults, generally taken once a day, is effective in maintaining many patients free of their symptoms of anxiety and tension.

Contraindications: Do not use with high doses of hypnotics or in patients with subcortical brain damage. Use with caution in patients with a history of convulsive disorders. Severe reactions may occur in patients with idiosyncrasy to other centrally-acting drugs, and severe hypotension may occur in patients with special medical disorders, e.g. mitral insufficiency and pheochromocytoma.

Precautions: Effects of atropine, anesthetics and C.N.S. depressants may be potentiated. Hypotension may occur in patients undergoing surgery. Do not use epinephrine for treatment of the hypotensive reactions which may appear in patients on phenothiazine therapy.

Side Effects: Extrapyramidal reactions, allergic skin reactions, the possibility of anaphylaxis, drowsiness, visual blurring, dizziness, insomnia, nausea, anorexia, salivation, edema, perspiration, dry mouth, abnormal lactation, polyuria, hypotension, and jaundice and biliary stasis may occur. Routine blood counts are recommended to determine possible blood dyscrasias; if symptoms of upper respiratory infection occur, discontinue drug and institute appropriate therapy.

Available: 1 mg. tablets. Bottles of 50 and 500.

For full prescribing information, see package insert

References: 1. Simpson, G.M.: Postgrad. Med. 39:557, 1966. 2. Freyhan, F.A.: Am. J. Psychiat. 115:577, 1959. 3. Dorland's Illustrated Medical Dictionary, ed. 24, Philadelphia, W. B. Saunders Co., 1965, p. 1603. 4. Physicians' Desk Reference, 1966, Oradell, N.J., 1965, p. 310. 5. Cohen, S.: Northwest Med.: 65:197, 1966. 6. Detre, T., and Jarecki, H.: Connecticut Med. 25:553, 1961. 7. Sainz, A.: Psychosomatics 5:167, 1964.

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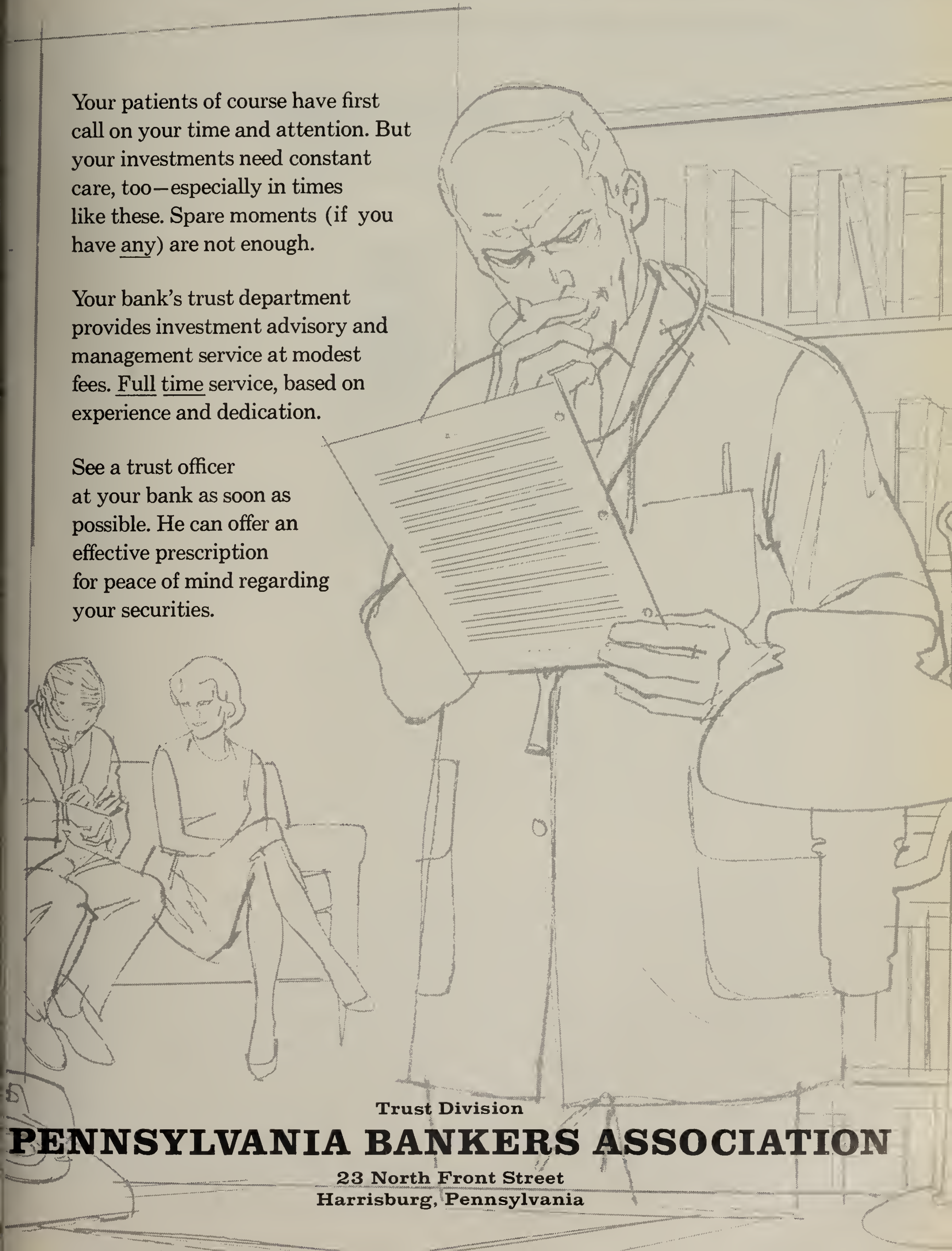

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23 North Front Street
Harrisburg, Pennsylvania

against the usual gram-negative urinary pathogens

Why use five...where one will do?

In a recent 217-patient hospital study,[1] urinary tract infections were treated with a variety of widely prescribed antimicrobial agents including: a sulfonamide (40 patients), chloramphenicol (20 patients), nitrofurantoin (33 patients), nalidixic acid (30 patients), tetracycline (27 patients), colistimethate sodium (22 patients)...and 2 combinations of 5 agents each (45 patients). The 2 combinations were selected to afford maximal theoretical antibacterial coverage against the usual urinary pathogens. They were (1) tetracycline, chloramphenicol, nitrofurantoin, ristocetin and polymyxin B; and (2) tetracycline, chloramphenicol, erythromycin, nitrofurantoin and colistimethate sodium.

This clinical study shows that the two combinations of antibiotics were not superior to some of their single components. The authors point out that antibiotic antagonism often negates theoretical advantages of multiple therapy. Coly-Mycin Injectable (colistimethate sodium) was one of the single components that was shown to be equal to the combinations and eradicated bacteriuria in two-thirds of the patients.

Theoretical choice of multiple antibacterial therapy has been shown to be no more effective than one well-chosen agent which also offers least patient exposure to possible side reactions, toxicities, allergic manifestations and higher drug costs.

1. McCabe, W. R., and Jackson, G. G.: New England J. Med. *272*:1037, 1965.

in gram-negative urinary tract infections often the single well-chosen agent

Coly▲Mycin® Injectable
(colistimethate sodium)

Indications: Especially indicated for the treatment of severe acute and resistant chronic urinary tract infections due to sensitive strains of gram-negative organisms. Also indicated in respiratory tract, surgical, wound and burn infections and in septicemia due to sensitive organisms. Particularly indicated when any of these infections are caused by sensitive strains of *Pseudomonas aeruginosa.*

Adverse Reactions: Occasional reactions such as circumoral paresthesias, tingling of the extremities, pruritus, vertigo or dizziness may occur. Reduction of dosage may alleviate symptoms. Therapy need not be discontinued, but such patients should be observed with extra care.

Warning: Patients should be cautioned not to drive vehicles or use hazardous machinery while on therapy.

Precautions: In cases of impaired or suspected renal impairment, use with greater caution and reduce dosage in proportion to extent of impairment. Transient elevations of BUN have been reported. As a routine precaution, appropriate blood studies should, therefore, be made during prolonged therapy.

As with all polypeptides, the possibility of muscular weakness, including apnea, due to inadvertent overdosage or normal dosage in the presence of impaired renal function, should not be overlooked. In cases of apnea, medication should be promptly discontinued and assisted respiration given until serum levels fall and normal breathing is restored.

Other antibiotics, such as kanamycin, streptomycin, dihydrostreptomycin, polymyxin, and neomycin, may also have varying neurotoxic or nephrotoxic potential. They should be used with great caution concomitantly with Coly-Mycin Injectable (colistimethate sodium).

For deep intramuscular injection only.

Dosage: By the I.M. route only, in 2 to 4 divided doses ranging from 1.5 to 5 mg./Kg./day (0.7 mg. to 2.3 mg./lb./day). Average adult dose is 2.5 mg./Kg./day (1.1 mg./lb./day). In the presence of bacteremia, septicemia, or other serious infection, greater than average doses may be required; however, maximum daily doses should not exceed 5 mg./Kg. (2.3 mg./lb.) where renal function is normal.

Not recommended against Proteus.

Colistin is also available (as colistin sulfate) in: Coly-Mycin® Pediatric for Oral Suspension (not for systemic use), and Coly-Mycin® Otic with Neomycin and Hydrocortisone.

Full information is available on request.

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WARNER-CHILCOTT Morris Plains, New Jersey

THIS MONTH

Heart Disease, Cancer and Stroke Program Receives Grant

The National Institute of General Medical Sciences has awarded thirty-eight new research training grants, totaling $2.26 million to thirty colleges, universities and hospitals throughout the United States. In accordance with a congressional mandate, the grants will support special research training efforts to increase the skilled manpower to help conquer heart disease, cancer and stroke. Temple University is scheduled to receive $133,000 in the training area of radiology; the University of Pennsylvania, $76,000 in the area of surgery and the University of Pittsburgh, $100,000 in the area of radiology.

The Senate Appropriations Committee noted that "an adequate supply of these critically important supporting skills is essential if the best in medical capability is to be made available." The Committee added that "training efforts in these fields are complementary to the proposal for further research efforts in the same area."

Nationally, the grants are available in the areas of research training in surgery, research training in diagnostic radiology, anesthesiology and biomedical engineering.

PROGRAM PARTICIPANTS in the first Pennsylvania Blue Shield District Commissioners Conference included, left to right, Thomas W. Georges, M.D., assistant to the secretary for medical affairs, Pennsylvania Department of Public Welfare; Victor J. Margotta, M.D., chairman of the Blue Shield professional relations committee; William B. West, M.D., immediate past-president of Pennsylvania Medical Society; James Z. Appel, M.D., immediate past president of American Medical Association; Earl Robinson, liaison representative, Division of Insurance Operations, Social Security Administration, and Sydney E. Sinclair, M.D., vice president—medical affairs, Pennsylvania Blue Shield. Medicare was the main topic of discussion at the conference, held recently in Camp Hill.

DR. HARRIS

John H. Harris, Jr., M.D., Carlisle radiologist, was elected second vice president of the Pennsylvania Division, American Cancer Society, at the Society's annual meeting October 5, in Allentown.

Dr. Harris, who is radiologist at Carlisle Hospital, has long been active in the Cumberland Unit and has been a member of the board of directors of the Pennsylvania Division of the Society for six years.

In addition to his duties at the Carlisle Hospital, Dr. Harris is an instructor of radiology, Graduate School of Medicine, University of Pennsylvania, and assistant professor of clinical radiology, Jefferson Medical College.

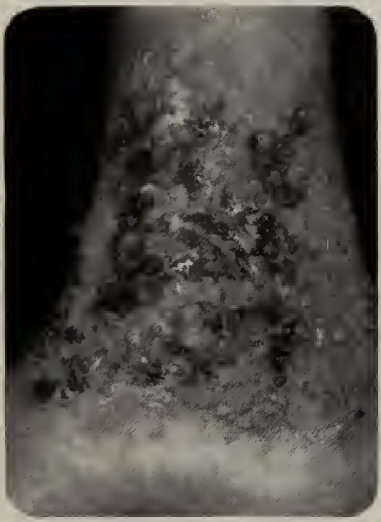
Senator Sarraf

George J. Sarraf, M.D., who served in the State Legislature for the last 31 years, died September 9, 1966 in St. Francis General Hospital, Pittsburgh, of complications following vascular surgery. He was 65.

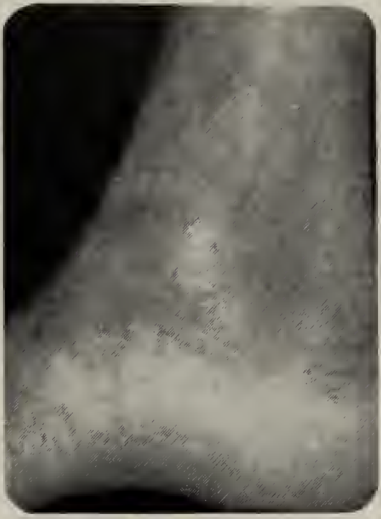
Dr. Sarraf, a practicing physician, was elected to the state House in 1934. He was re-elected to the House ten times, serving eleven consecutive terms from 1934 to 1956. At a special election in 1956 he was elected to the state Senate and was re-elected to the Senate in 1958 and 1962.

Dr. Sarraf, a retired U.S. Army brigadier general, served in World War I and World War II.

eczema: scourge of childhood



R. R., Age 11—Before treatment—
atopic eczema of long standing



After treatment—with ARISTOCORT
Topical Ointment 0.1% for two weeks

ARISTOCORT® Triamcinolone Acetonide Topicals have proved exceptionally effective in the control of various forms of childhood eczema: allergic, atopic, nummular, psoriatic, and mycotic.

In most cases responsive to topical ARISTOCORT, the 0.1% concentration is sufficiently potent. The 0.5% concentration provides enhanced topical activity for patients requiring additional potency for proper relief.

Administration and Dosage: Apply sparingly to the affected area 3 or 4 times daily. Some cases of psoriasis may be more effectively treated if the 0.1% Cream or Ointment is applied under an occlusive dressing.

Contraindications: Tuberculosis of the skin, herpes simplex, chicken pox and vaccinia.

Precautions and Side Effects: Do not use in the eyes or in the ear (if drum is perforated). A few individuals react unfavorably under certain conditions. If side effects are encountered, the drug should be discontinued and appropriate measures taken. Use on infected areas should be attended with caution and observation, bearing in mind the potential spreading of infection and the advisability of discontinuing therapy and/or initiating antibacterial measures. Generalized dermatological conditions may require systemic corticosteroid therapy. Steroid therapy, although responsible for remissions of dermatoses, especially of allergic origin cannot be expected to prevent recurrence. The use over extensive body areas, with or without occlusive nonpermeable dressings, may result in systemic absorption. Appropriate precautions should be taken. When occlusive nonpermeable dressings are used, miliaria, folliculitis and pyodermas will sometimes develop. Localized atrophy and striae have been reported with the use of steroids by the occlusive technique. When occlusive nonpermeable dressings are used, the physician should be aware of the hazards of suffocation and flammability. The safety of use on pregnant patients has not been firmly established. Thus, do not use in large amounts or for long periods of time on pregnant patients.

Packages: Tubes of 5 Gm. and 15 Gm.; ½ lb. jar.

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What's Going on at Jefferson?

LEO T. RIORDAN, DIRECTOR OF PUBLIC RELATIONS
Jefferson Medical College and Hospital
Philadelphia, Pennsylvania

In late June of 1966, three young students at the entrance to the Jefferson Medical College on Walnut Street in Philadelphia chatted idly. They were somewhat awed by the realization that they were seniors and launched upon their final year at "Old Jeff." Conversation turned to the demolition in progress on the south side of Walnut Street, where the entire block, 10th to 11th down to Locust, was being cleared for new Jefferson buildings, except for the one existent Hospital facility, the James R. Martin Student Nurses' Residence.

"You know, Jeff will certainly look impressive for our fifth reunion," one of the seniors remarked. He was picturing the expanding institution extending three blocks southward, at least a half block eastward, and perhaps another half block westward.

While none of the seniors grumbled about having been born too soon, it was apparent that they somewhat envied the students who would follow and would occupy the handsome classroom and laboratory facilities, and the residential buildings planned in the open area they were viewing from the entrance to the college.

Actually, for three years they had been so engrossed in study that they had missed the implications at Jefferson for the last seven years and for the next seven. Starting in 1958, the Dean's office had been athrob with activity due to the expansion of research and the projection of curricula. Research projects were limited then because almost all space was in use. There was a restless feeling in the old college building, and a realization that Jefferson simply had to expand or explode. Buildings and space in many areas around Jefferson were rented and converted to meet these burgeoning needs. Research and training grants nearly doubled in six years to $4.5 million. By 1959 the extension of these activities had increased so greatly, as the Dean and Faculty charted out the need for ever-increasing educational, research, and patient care areas, that the President's office became a beehive of activity to implement the planning for permanent new quarters. Allowances were programmed for foreseeable future development. All considerations were then wrapped up in the $41 million development program now fully functioning. Thus the students suddenly realized that a great deal more than anyone of them had ever sensed had developed during their undergraduate days.

Jefferson 'Firsts'

In June, 1963, the summer vacation period preceding their freshman year, the first successful kidney transplant in the metropolitan Philadelphia area had been performed in Jefferson Hospital. This had been the triumph of a three-man team, all young faculty members carefully selected and completely supported by their department heads. The dedicated trio had enjoyed full support from the hospital administration just as had been the case in 1953. In that year, Dr. John H. Gibbon, Jr., Samuel D. Gross Professor of Surgery, had performed the world's first successful open-heart surgery at Jefferson. This involved the heart-lung machine he had invented.

THE JEFFERSON MEDICAL COLLEGE · OF PHILADELPHIA · 1824 ·

Three months before these members of the class of 1967 originally entered Jefferson, the pilot group of students in the five-year accelerated cooperative program with The Pennsylvania State University had started studies at University Park. Had these students pursued a normal four-year premedical preparation for Jefferson, they would be entering Jefferson as freshmen in 1967. Instead, they will be entering the junior class. What this still very experimental program can mean to medical education remains to be seen. Thus far, everything in this program is satisfactory, and the students are posting magnificent records. This past summer the first group received B.S. degrees from Pennsylvania State and of the 22, 14 were graduated with honors.

Among the most exciting new projects when the present seniors were freshmen was the recently opened Cardeza Foundation Laboratories, one of the nation's great centers for the study of blood, with enlarged laboratory facilities. And eager, vigorous, young investigators have been attracted to it.

Another project which would have seemed too far in the future in 1963, but really seems close at hand in the fall of 1966, involves continuing medical education. Established by Dean Sodeman and spearheaded by Dr. John H. Killough, this important program anticipated the present national interest in continuing education and has given Jefferson a "head start" in this field in relation to cooperation with community hospitals.

In its five-year program, Jefferson concerns itself with students before they enter, and in the continuing education program, Jefferson concerns itself with students after graduation.

The latter project now involves some 6,900 Pennsylvania physicians yearly, and sends Jefferson faculty members to the physicians' home area. They thus need not leave their patients for the one-day programs. Since most of the students at Jefferson, the largest medical college in the Commonwealth, will practice in Pennsylvania, their alma mater can reach them on a continuing basis.

Of course, from their first day, the class of 1967 was delighted with the new James R. Martin Student Nurses' Residence, directly facing the hospital units. Traditionally, many Jefferson medical students have found ideal wives among Jefferson-trained nurses.

At the 1966 commencement an M.D recipient was the son of a Jefferson alumnus and a Jefferson alumna, and his two sisters also were Jefferson alumnae. Such links are not uncommon and help to explain the historic loyalty and devotion of Jefferson physician alumni.

These attributes also apply when referring to generations. At the 1966 commencement an M.D. recipient continued a family link that traced back to the class of 1829 (the fourth graduating class).

Progress Expansion

As the students began to reflect further, they realized that a great potential was eminent in their class history in terms of what had happened at Jefferson during their time.

Not only had there been tremendous progress in the educational program, but the Stein Research Center had been opened, immediately making possible the transfer of some research activity from existing buildings and in turn making room for new projects in the vacated spaces. This Stein facility is concerned both with cancer research in the Eleanor Roosevelt Cancer Research Laboratory, and with prenatal malformations.

At the same time, the Physical Medicine and Rehabilitation Center at Jefferson, a modern, spacious and completely refurbished facility, suddenly dramatized a whole new field to the students. One of the members of this class returned to Jefferson two weeks before the opening of sophomore classes, badly injured as the result of a water skiing accident. Before that year ended, his progress to the point of walking naturally—if a little hesitantly—made a deep impression.

Meanwhile, the students were increasingly conscious of the rapidly extending amount of research being carried on by students. A member of the class of 1966 enjoyed a $1,000 research grant won in competition among the nation's medical students. In that year too, 30 percent of the undergraduates participated in research with various faculty members. By no means is this activity meant to develop researchers out of all students involved. Some with such leanings will be so stimulated, but all will gain knowledge of the development and evaluation of the facts of medical science upon which practice is based.

Jefferson Immortals

A favorite professor at Jefferson has always been regarded as a man of distinction in his field, but unfortunately much of the greatness of Jefferson has been obscured. Not too much has been done to honor the many Jefferson Greats at the school itself. Jefferson has simply been too busy overexerting itself to provide a tremendous contribution to medical education in America. The institution has been able to educate more physicians than any other medical school in America only through the willingness of its faculty to work in frustratingly limited quarters, and the readiness of the students to forego such luxuries as campus and landscaping.

Jefferson Medical College of Philadelphia

A stark contrast to the expanding Jefferson Medical College of 1966.

"The Gross Clinic" by Thomas Eakins is, in many ways, the great symbol of the institution. Samuel D. Gross was born on a farm in Easton, Pennsylvania, in a setting not unlike that which has provided Jefferson with many of its greatest figures. When a young Philadelphia artist, Thomas Eakins, asked if he might study anatomy as a special student under Dr. Gross, the surgeon was most obliging. From this association, in which the risingly important artist continued to idolize the surgeon, grew the bond which made possible the painting of the revolutionary "Gross Clinic." Considering the value placed on it by art authorities who have no connection with Jefferson, it does bear out the proud and affectionate boast of the alumni. They call it the greatest of all American pieces of art, and find considerable support among art critics. Similarly, the Jefferson alumni boast, that Dr. Gross was the greatest surgeon America produced up to the 20th century, finds few objectors.

While the Pennsylvania State University found Dr. S. Weir Mitchell worthy of a place on the carved list of immortals in its Liberal Arts building, saluting simply a fraction of his life, nothing at Jefferson in a tangible way perpetuates the memory of the remarkable and versatile figures. Faculty discussions indicate a plan to do so. Some members of the alumni consider Dr. Mitchell the greatest of all graduates, but they speak softly for fear the admirers of Dr. Gross will come charging forth.

Similarly, there is nothing at Jefferson to perpetuate the memory of Dr. J. Marion Sims except a medical specialty society for undergraduates. Statues of him stand proudly in New York and in several Southern cities, as well as cities in Europe, where he is universally hailed as the "father of modern gynecology." Dr. Sims provided another of the many "firsts" which Jefferson has contributed to medicine in America. By his own initiative and leadership he created the first hospital in this country devoted to the treatment of women.

Increasing its student body to 192 per class in September 1967, extending and perfecting its campus, recreating its curriculum for more effective medical education, expanding its boundaries in research and in patient care, bringing its programs to the community, strengthening its Graduate School in the Basic Sciences, and planning broader programs in the health sciences, Jefferson is well on its way toward making this fine proud old medical college into the total Health Center and "Medical University" which most medical schools are striving to become.

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for multiple contraceptive action that has produced a record of unexcelled effectiveness

inhibition of ovulation by means of 2 time-proved hormonal agents

production of a cervical mucus hostile to sperm motility and vitality

creation of an endometrium unreceptive to egg implantation

no unplanned pregnancies
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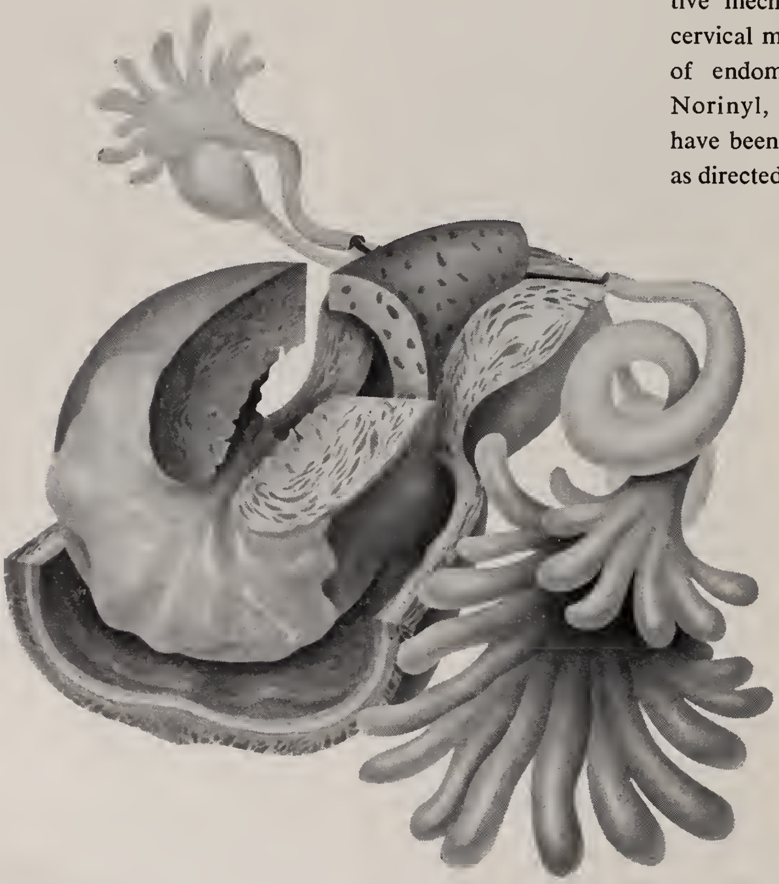

plus important supportive benefits that help her through those critical early months of oral contraception

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Low incidence of BTB and spotting, nausea and amenorrhea tends to minimize side effect problems and increases patient cooperation.

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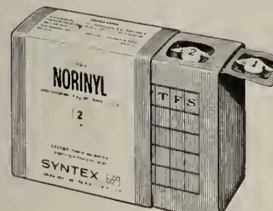

Contraindications: Thrombophlebitis or pulmonary embolism (current or past). Existing evidence does not support a causal relationship between use of Norinyl and development of thromboembolism. While a study which was conducted does not resolve definitively the possible etiologic relationship between progestational agents and intravascular clotting, it tends to confirm the findings of the Ad Hoc Advisory Committee appointed by the Food and Drug Administration to review this possibility. Cardiac, renal or hepatic dysfunction. Carcinoma of the breast or genital tract. Patients with a history of psychic depression should be carefully studied and the drug discontinued if depression recurs to marked degree. Patients with a history of cerebral vascular accident.

Warning: Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn.

Precautions: By May 1963, experience with norethindrone 2 mg.—mestranol 0.1 mg. had extended over 24 months. Through miscalculation, omission or error in taking the recommended dosage of Norinyl, pregnancy may result. If regular menses fail to appear and treatment schedule has not been adhered to, or if patient misses two menstrual periods, possibility of pregnancy should be resolved before resuming Norinyl. If pregnancy is established, Norinyl should be discontinued during period of gestation since virilization of the female fetus has been reported with oral use of progestational agents or estrogen. When lactation is desired, withhold Norinyl until nursing needs are established. Existing uterine fibroids may increase in size. In metabolic or endocrine disorders, careful clinical preevaluation is indicated. A few patients without evidence of hyperthyroidism had elevated serum protein-bound iodine levels, which in the light of present knowledge, does not necessarily imply hyperthyroidism. Protein-bound iodine increased following estrogen administration. Bromsulphalein retention has occurred in up to 25% of patients without evidence of hepatic dysfunction. Studies from 24-hour urine collections have shown an increase in aldosterone and 17-ketosteroids and decrease in 17-hydroxycorticoid levels. Thus, Norinyl should be discontinued prior to and during thyroid, liver or adrenal function tests. Because progestational agents may cause fluid retention, conditions such as epilepsy, migraine and asthma require careful observation. Thus far no deleterious effect on pituitary, ovarian or adrenal function has been noted; however, long-range possible effect on these and other organs must await more prolonged observation. Norinyl should be used with caution in patients with bone, renal or any disease involving calcium or phosphorus metabolism.

Side Effects: Intermenstrual bleeding; amenorrhea; symptoms resembling early pregnancy, such as nausea, breast engorgement or enlargement, chloasma and minor degree of fluid retention (if these should occur and patient has not strictly adhered to medication plan, she should be tested for pregnancy); weight gain; subjective complaints such as headache, dizziness, nervousness, irritability; in a few patients libido was increased. In a total of 3,090 patients, 2.2% discontinued medication because of nausea.

NOTE: See sections on contraindications and precautions for possible side effects on other organ systems.

Dosage and Administration: One Norinyl tablet orally for 20 days, commencing on day 5 through and including day 24 of the menstrual cycle. (Day 1 is the first day of menstrual bleeding.)

Availability: Dispensers of 20 and 60 tablets; bottles of 100.

References: **1.** Council on Drugs. JAMA 187:664 (Feb. 29) 1964. **2.** Bryans, F. E.: Canad Med Ass J 92:287 (Feb. 6) 1965. **3.** Goldzieher, J. W.: Med Clin N Amer 48:529 (Mar.) 1964. **4.** Cohen, M. R.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965. **5.** Hammond, O. O.: Ibid. **6.** Rice-Wray, E., Goldzieher, J. W., and Aranda-Rosell, A.: Fertil Steril 14:402 (Jul.-Aug.) 1963. **7.** Goldzieher, J. W., Moses, L. E., and Ellis, L. T.: JAMA 180:359 (May 5) 1962. **8.** Kempers, R. O.: GP 29:88 (Jan.) 1964 **9.** Tyler, E. T.: JAMA 187:562 (Feb. 22) 1964. **10.** Rudel, H. W., Martinez-Manautou, J., and Maqueo-Topete, M.: Fertil Steril 16:158 (Mar.-Apr.) 1965. **11.** Flowers, C. E., Jr.: N Carolina Med J 25:139 (Apr.) 1964. **12.** Goldzieher, J. W.: Appl Ther 6:503 (June) 1964. **13.** The Control of Fertility. Report adopted by the Committee on Human Reproduction of the American Medical Association. JAMA 194:462 (Oct. 25) 1965. **14.** Flowers, C. E., Jr.: JAMA 188:1115 (June 29) 1964. **15.** Merritt, R. I.: Appl Ther 6:427 (May) 1964. **16.** Newland, O. O.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965.

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Norinyl® tablets
(norethindrone 2 mg. c̄ mestranol 0.1 mg.)

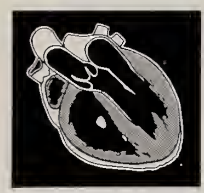
for multiple contraceptive action

SQUIBB NOTES ON THERAPY

Behind continued high blood pressure readings lies the possibility of organic damage[1-13]

MANY OF THE aspects of essential hypertension are unpredictable—either because there are a number of mechanisms involved or because individuals differ in their responses to these mechanisms.[1]

There is one aspect of hypertension, however, that seems, in many cases, predictable. ". . . when the blood pressure is elevated to a marked degree for an adequate period of time, this in itself leads to perpetuation of the syndrome with resulting vascular damage throughout the body."[14] All too often the disease progresses until there is damage to one of three vital organs: the heart, the kidney, the brain.



> "Hypertension is certainly a major factor in the genesis of coronary heart disease, and it is even more important when compounded with obesity."[4]
>
> "[Vascular deterioration] can be clearly seen in the kidney with a degree of damage that can be measured by renal function studies."[10]

". . . most evidence suggests that reduction of blood pressure, when it is too high, not only relieves the heart of excess work but reduces vascular damage."[1]

"In short, treatment is indicated."[1]

Antihypertensive therapy will not restore the blood vessels to normal. Yet many of the vascular changes and symptoms caused by increased blood pressure may be arrested or alleviated when the blood pressure is reduced to normotensive levels.[7]

Reducing the blood pressure helps curtail further vascular damage and improves the prognosis — when damage is not too far advanced before therapy is started.[14] Essential hypertension is an indication not only for treatment, but for *early* and adequate treatment of the patient in question.

Reduce the blood pressure with Rautrax-N

Rautrax-N combines the antihypertensive-tranquilizing action of whole root rauwolfia with the antihypertensive-diuretic action of bendroflumethiazide in one convenient medication. The two drugs complement each other so that smaller doses of both are possible.

Rauwolfia combined with bendroflumethiazide is particularly effective in long-term therapy,[15-17] since beneficial effects do not diminish with continuous daily administration.

For most patients 1 or 2 Rautrax-N tablets daily are sufficient for maintenance therapy. The simplicity, convenience and economy of such a dosage schedule are of particular benefit to older patients.

References: **1.** Page, I. H., and Dustan, H. P.: The Usefulness of Drugs in the Treatment of Hypertension, in Ingelfinger, F. J.; Relman, A. S., and Finland, M.: Controversy in Internal Medicine, Philadelphia, W. B. Saunders Co., 1966, p. 95. **2.** Hollander, W.: The Evaluation of Antihypertensive Therapy of Essential Hypertension in Ingelfinger, F. J.; Relman, A. S., and Finland, M.: Controversy in Internal Medicine, Philadelphia, W. B. Saunders Co., 1966, p. 97. **3.** Nickerson, M.: Antihypertensive Agents and the Drug Therapy of Hypertension, in Goodman, L. S., and Gilman, A.: The Pharmacological Basis of Therapeutics, ed. 3, New York, The Macmillan Co., 1965, p. 727. 4. Berkson, D. M.: Indust. Med. & Surg. **32**:371, 1963. **5.** Cohen, B. M.: M. Times **91**:645, 1963. 6. Lee, R. E., et al.: Am. J. Cardiol. **11**:738, 1963. 7. Moyer, J. H.: Am. J. Cardiol. **9**:821, 1962. **8.** Moser, M.: New York J. Med. **62**:1177, 1962. **9.** Wood, J. E., and Battey, L. L.: Am. J. Cardiol. **9**:675, 1962. **10.** Moyer, J. H., and Heider, C.: Am. J. Cardiol. **9**:920, 1962. **11.** Moser, M., and Macaulay, A. I.: New York State J. Med. **60**:2679, 1960. **12.** Judson, W. E.: Nebraska M. J. 44:305, 1959. **13.** Hodge, J. V.; McQueen, E. G., and Smirk, H.: Brit. M. J. **1**:5218, 1961. **14.** Moyer, J. H., and Brest, A. N.: Hypertension Recent Advances, Philadelphia, Lea & Febiger, 1961, p. 633. **15.** Berry, R. L., and Bray, H. P.: J. Am. Geriatrics Soc. **10**:516, 1962. **16.** Reid, W. J.: J. Am. Geriatrics Soc. **13**:365, 1965. **17.** Feldman, L. H.: North Carolina M. J. **23**:248, 1962.

Contraindications: Severe renal impairment or previous hypersensitivity. **Warning:** Ulcerative small bowel lesions have occurred with potassium-containing thiazide preparations or with enteric-coated potassium salts supplementally. Stop medication if abdominal pain, distension, nausea, vomiting or G.I. bleeding occur.

Precautions and Side Effects: The dose of ganglionic blocking agents, veratrum or hydralazine when used concomitantly must be reduced by at least 50% to avoid orthostatic hypotension. Caution is indicated in patients with depression, suicidal tendencies, peptic ulcer; electrolyte disturbances are possible in cirrhotic or digitalized patients. Marked hypotension during surgery is possible; consider discontinuing two weeks prior to elective surgery and observe patients closely during emergency surgery. Rauwolfia preparations may cause reversible extrapyramidal symptoms and emotional depression, diarrhea, weight gain, edema, drowsiness may occur. Bendroflumethiazide may cause increases in serum uric acid, unmask diabetes, increase glycemia and glycosuria in diabetic patients, and may cause hypochloremic alkalosis, hypokalemia; cramps, pruritus, paresthesias, rashes may occur.

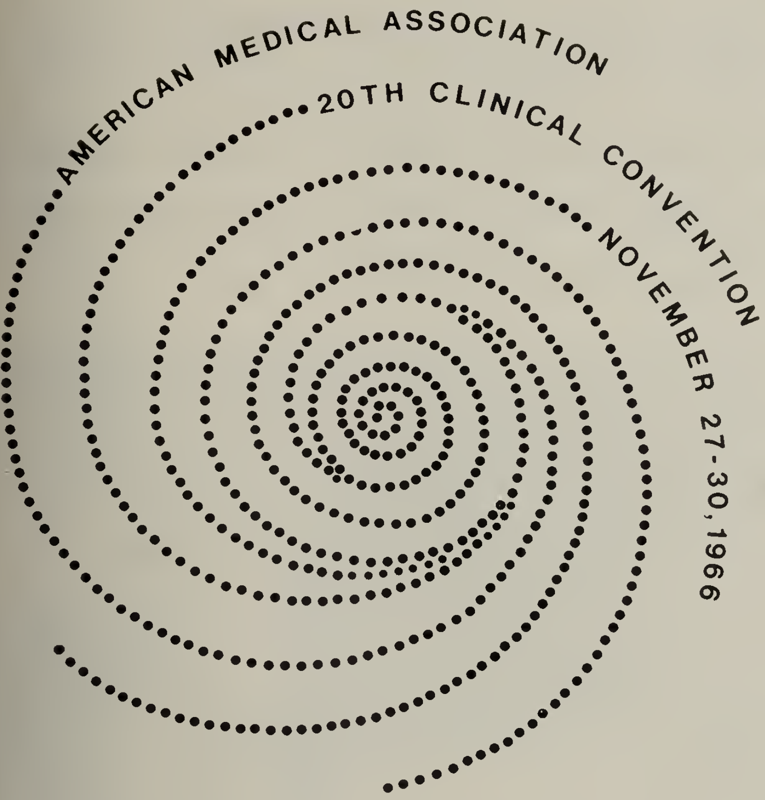
Dosage and Supply: Initial dosage, 1 to 4 tablets daily, preferably at mealtime. Maintenance, 1 or 2 tablets daily. Rautrax-N is supplied as capsule-shaped tablets containing 50 mg. Rauwolfia serpentina whole root (Raudixin®), 4 mg. bendroflumethiazide (Naturetin®), 400 mg. potassium chloride.

Also available: Rautrax-N Modified — capsule-shaped tablets containing 50 mg. Rauwolfia serpentina whole root (Raudixin), 2 mg. bendroflumethiazide (Naturetin), 400 mg. potassium chloride. Both potencies available in bottles of 100. For full information, see Product Brief.

RAUTRAX®-N

Squibb Rauwolfia Serpentina Whole Root (50 mg.) with Bendroflumethiazide (4 mg.) and Potassium Chloride (400 mg.)

SQUIBB 'The Priceless Ingredient' of every product is the honor and integrity of its maker.



AMA '66
LAS VEGAS

Convention site "extraordinaire" that's Las Vegas. America's entertainment capital becomes the classroom for America's practicing physicians—offering you a comprehensive, compact, postgraduate course in recent developments in medical science. A magnificent Convention Center, fine hotels and motels, excellent restaurants plus star studded entertainment await you and your family.

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Scientific sessions will be held on the following topics: Scintillation Scanning • Radiation and Cancer • Clinical Pulmonary Physiology • Gastroenterology • Futuristic Diagnostic and Therapeutic Tools • Neck Pain • Antibiotics • Urology • Aerospace Medicine • Unconsciousness • Dermatology • Juvenile Diabetes • Endocrine and Metabolic Diseases • Pediatrics • Surgery • Hematology • Psychiatry • Otolaryngology.

Three Postgraduate Courses will be presented: Obstetrics and Gynecology • Fluid and Electrolyte Balance • Cardiovascular Disease. Each Course will consist of three half-day sessions, and there will be a registration fee of $10.00 for each course, payable with your advance registration.

Four Breakfast Round Table Conferences will be held on the following topics: The Management of Metabolic Bone Disease • Indication for Cardioversion • The Problems and Potential of L.S.D. • An Agonizing Reappraisal of Cancer Chemotherapy • **Closed Circuit Television • Medical Motion Picture Programs • Over 275 Scientific and Industrial Exhibits.**

The complete scientific program, plus forms for advance registration and hotel accommodations, will be featured in JAMA October 24.

AMA Clinical Convention

The physician continues to face a problem in managing his time. He seems to become busier and busier, and yet he knows he needs some time to himself to refresh his professional knowledge.

The average physician is now working a 58-hour week, and many of us are putting in hours far above that number. How, then, can we find the time to study and keep abreast of new medical knowledge?

One of the best and most efficient methods of checking up on new developments is to attend the annual Clinical Convention of the American Medical Association. It will be in Las Vegas this year, November 27-30.

For the 20th consecutive year, the AMA is bringing this impressive collection of new clinical knowledge to the practitioner. The Clinical Convention is designed primarily for the man in practice. The speakers will read papers that will bring to the practitioner the latest findings of others in this area.

Particularly noteworthy are the postgraduate courses—expanded to three topics this year—on fluid and electrolyte balance, cardiovascular disease, and obstetrics and gynecology. Each course will consist of three half-day sessions, each led by stimulating teachers.

Other sessions will be devoted to timely subjects, followed by question-and-answer or discussion periods. Breakfast roundtables will provide further time for informal discussion. An outstanding program of medical motion pictures and medical color television will again be a convention feature.

The Clinical Convention promises to be a stimulating four days, worthy of the busy physician's time. I urge every physician to take advantage of this educational opportunity.

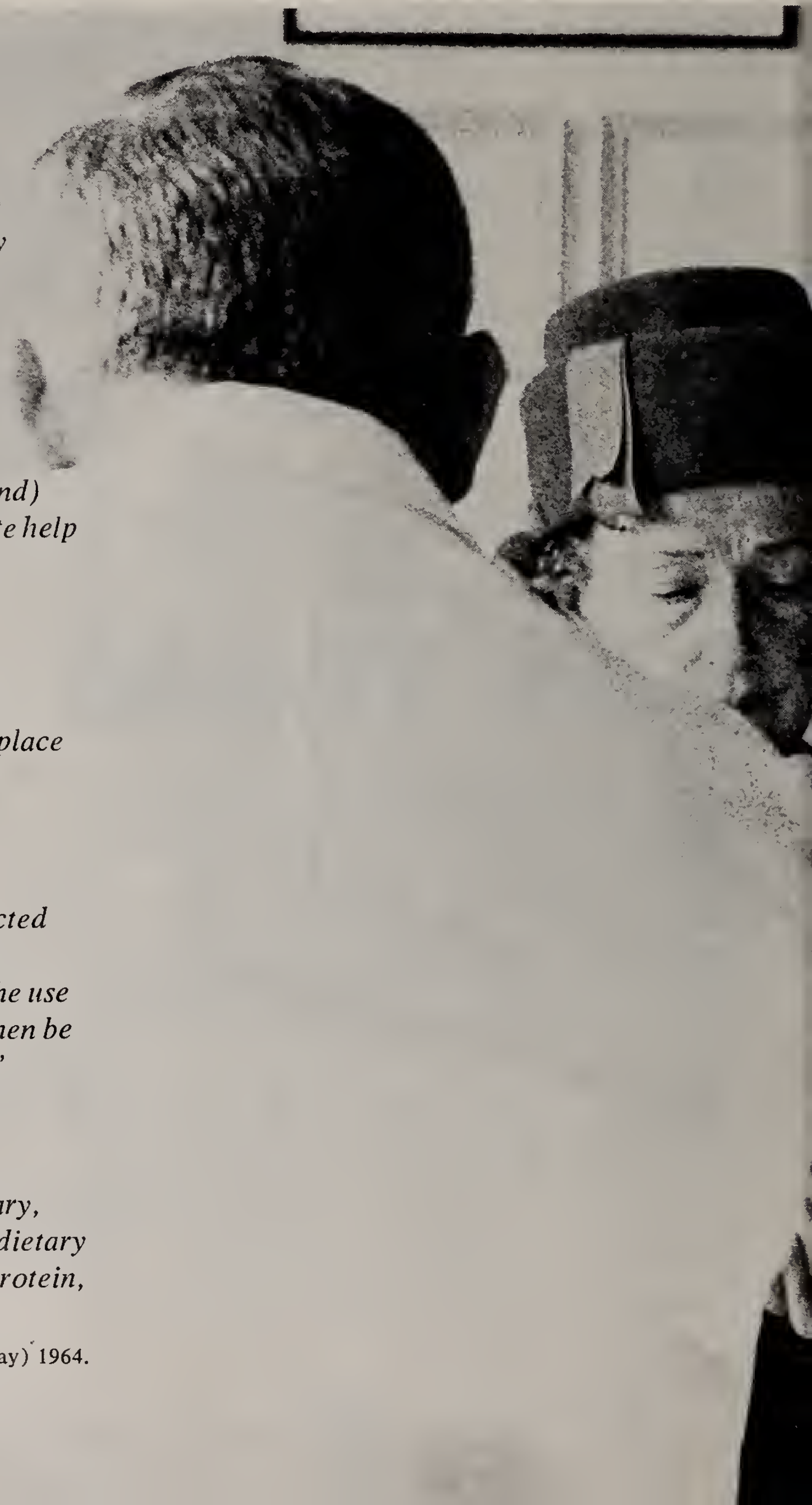
Charles L. Hudson, M.D.
President
American Medical Association

■ The University of Pennsylvania's Hyperbaric Chamber is now being dismantled and removed to enable the beginning of construction of a more versatile chamber system.

Between now and the completion of the new facilities, procedures for obtaining hyperbaric therapy will be established and announced by the medical center administration.

The Mediatric Age:

There is a growing senescent body of people on their way to malignant inactivity, who sorely need your interest and direction to help them back to a more active and useful life. There are medicines too, designed to help. One such has proved useful in clinical practice.



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McNeill, A. J.: Clin. Med. *8*:518 (Mar.) 1961.

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Arnold, E. T., Jr.: Geriatrics *12*:612 (Oct.) 1957.

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Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

"In diets which for any reason are restricted in calories, enough of these substances (B vitamins) may not be supplied . . . The use of B and C vitamin supplements may then be justified and indeed may be necessary."

Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

"Intensive nutritional therapy is necessary, especially in elderly people, to correct dietary deficiencies created by large losses of protein, vitamins and other nutrients."

Riccitelli, M. L.: J. Am. Geriatrics Soc. *12*:489 (May) 1964.

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Nutritional reinforcement for those who can't –or won't–eat properly...balanced amounts of estrogen and androgen to counteract declining gonadal hormone secretion and its sequelae of premature degenerative changes...mild antidepressant for a gentle "mood" uplift...

The estrogen component in MEDIATRIC is PREMARIN® (conjugated estrogens—equine), the natural estrogen most widely prescribed for its superior physiologic and metabolic benefits.

MEDIATRIC also provides *nutritional reinforcement–blood-building factors and vitamin supplementation.* It contributes a *gentle "mood" uplift* through methamphetamine HCl.

Three different dosage forms–Liquid, Tablets, and Capsules–offer convenience and variety.

MEDIATRIC Liquid

Each 15 cc. (3 teaspoonfuls) contains:

*Conjugated estrogens—equine (Premarin®)	0.25 mg.
Methyltestosterone	2.5 mg.
Thiamine HCl	5.0 mg.
Cyanocobalamin	1.5 mcg.
Methamphetamine HCl	1.0 mg.

Contains 15% alcohol

MEDIATRIC Tablets and Capsules

Each MEDIATRIC Tablet or Capsule contains:

*Conjugated estrogens—equine (Premarin®)	0.25 mg.
Methyltestosterone	2.5 mg.
Ascorbic acid	100.0 mg.
Cyanocobalamin	2.5 mcg.
Intrinsic factor concentrate	8.0 mg.
Thiamine mononitrate	10.0 mg.
Riboflavin	5.0 mg.
Niacinamide	50.0 mg.
Pyridoxine HCl	3.0 mg.
Calc. pantothenate	20.0 mg.
Ferrous sulfate exsic.	30.0 mg.
Methamphetamine HCl	1.0 mg.

*Orally active, water-soluble conjugated estrogens derived from pregnant mares' urine and standardized in terms of the weight of active, water-soluble estrogen content.

MEDIATRIC helps keep the older patient alert and active; helps relieve general malaise, easy fatigability, vague pains in the bones and joints, loss of appetite, and lack of interest usually associated with declining gonadal hormone secretion.

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WARNING: Some patients with pernicious anemia may not respond to treatment with the Tablets or Capsules, nor is cessation of response predictable. Periodic examinations and laboratory studies of pernicious anemia patients are essential and recommended.

SIDE EFFECTS: In addition to withdrawal bleeding, breast tenderness or hirsutism may occur.

SUGGESTED DOSAGES: *Male and female:* 3 teaspoonfuls of Liquid, 1 Tablet, or 1 Capsule, daily or as required.

In the female: To avoid continuous stimulation of breast and uterus, cyclic therapy is recommended (3 week regimen with 1 week rest period–Withdrawal bleeding may occur during this 1 week rest period).

In the male: A careful check should be made on the status of the prostate gland when therapy is given for protracted intervals.

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1 tablet daily
brings pressure down

Advantage: Both components of Regroton are long-acting.
Average dosage: One tablet daily with breakfast.
Contraindications: History of mental depression, hypersensitivity, and most cases of severe renal or hepatic diseases.
Warning: Discontinue 2 weeks before general anesthesia, 1 week before electroshock therapy, and if depression or peptic ulcer occurs. With administration of enteric-coated potassium supplements, the possibility of small bowel lesions should be kept in mind.
Precautions: Reduce dosage of concomitant antihypertensive agents by one-half. Discontinue if the BUN rises or liver dysfunction is aggravated. Electrolyte imbalance and potassium depletion may occur; take particular care in cirrhosis or severe ischemic heart disease, and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended. Use with caution in patients with ulcerative colitis, gallstones, or bronchial asthma.
Side effects: Nausea, vomiting, diarrhea, muscle cramps, headaches and dizziness. Potential side effects include angina pectoris, anxiety, depression, drowsiness, hyperglycemia, hyperuricemia, lassitude, leukopenia, nasal stuffiness, nightmare, purpura, urticaria, and weakness.
For full details, see the complete prescribing information.
Availability: Bottles of 100 and 1000 tablets.

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And now . . . for all you cold sufferers who've been looking for a cure-all.

They can't cure a cold. We can't cure a cold. You can't cure a cold. But what you can do is relieve the symptoms, making the patient comfortable and the cold bearable.

The patient suffering from head cold congestion, for instance, should breathe easier when you prescribe Novahistine LP. Novahistine LP is a long-acting decongestant that helps restore normal mucus secretion and ciliary activity—physiologic mechanisms which prevent infection of the respiratory tract. Two tablets in the morning and two in the evening will provide around-the-clock relief by helping to keep congested air passages clear, thus enabling your cold patient to enjoy normal and free breathing.

Use cautiously in individuals with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Tell patients who operate machinery or motor vehicles that drowsiness may result.

Each Novahistine LP tablet contains: phenylephrine hydrochloride, 25 mg., and chlorpheniramine maleate, 4 mg.

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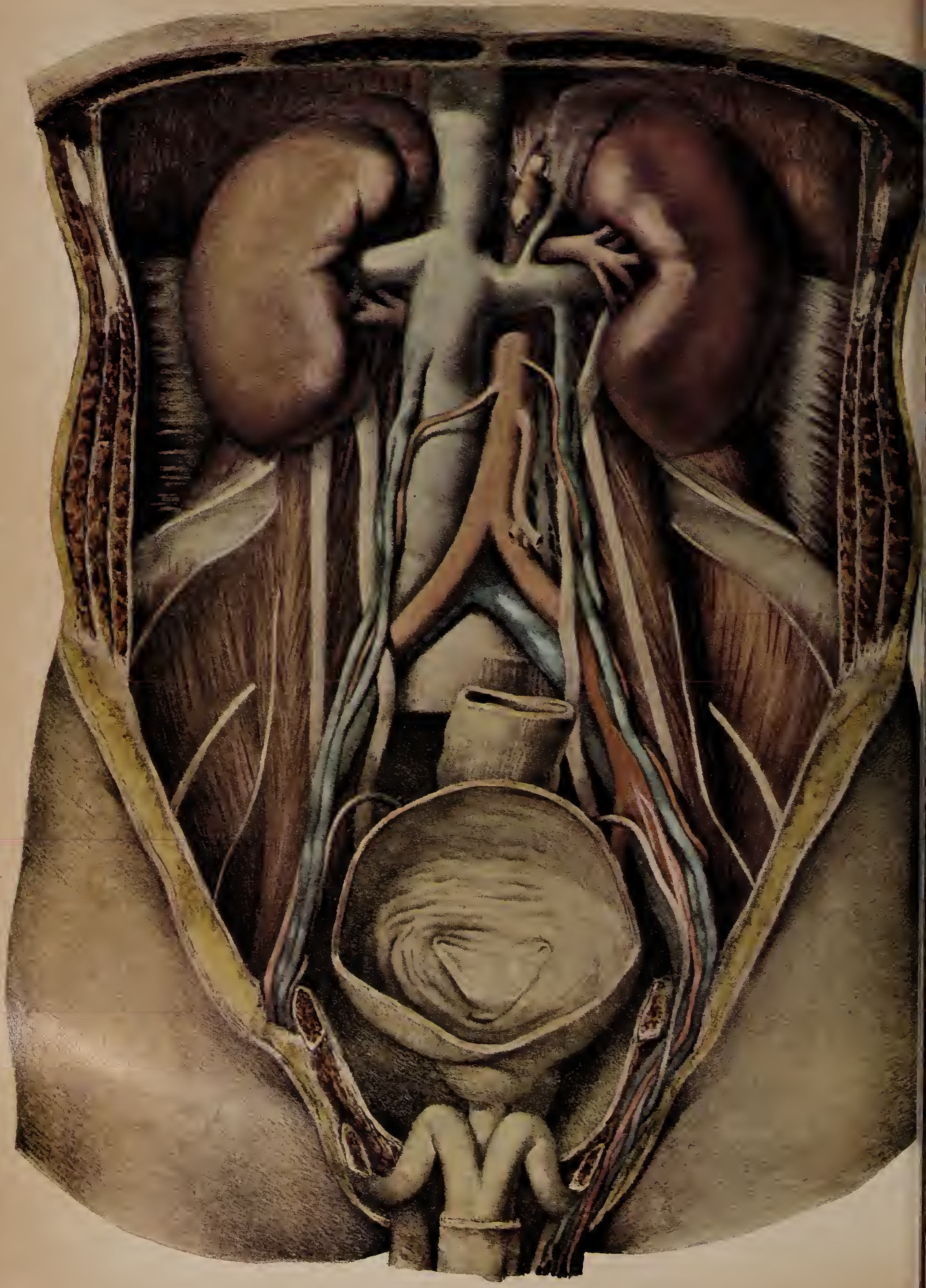

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Active at foci of infections—kidney, ureter, bladder or urethra.

Effective against many gram-negative and gram-positive pathogens—thus may be valuable not only in genitourinary but also in common respiratory and gastrointestinal infections.

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**Exclusive of penicillinase-producing bacteria.*

Indications: Urinary tract infections, especially those caused by *E. coli*, *Proteus mirabilis*, and *Streptococcus faecalis* and *viridans;* respiratory infections caused by *H. influenzae*, pneumococci, streptococci, and nonpenicillinase-producing staphylococci; and gastrointestinal infections caused by *Shigella* and *Salmonella*, including *Sal. typhosa*.

Contraindications: Hypersensitivity to penicillin; infections due to penicillinase-producing staphylococci and other penicillinase-producing bacteria.

Precautions: If allergic reaction occurs, discontinue ampicillin and administer epinephrine, corticosteroids, antihistamines and/or pressor amines as indicated. Transient moderate elevation of SGOT values of undetermined significance was noted in a few infants. Liver and kidney function as well as hematopoietic tests are advisable during therapy, particularly in infants. As with other antibiotics, precautions should be taken against gastrointestinal superinfection. Safety for use in pregnancy has not been established.

Adverse Reactions: Occasional mild side effects as urticaria, skin rash, pruritus, diarrhea, nausea and vomiting. There have been no reports of blood dyscrasias, liver or kidney damage. Anaphylaxis has been reported.

Composition: Capsules, 250 mg.

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DEXTRO-AMPHETAMINE SULFATE (15 mg.) SUSTAINED RELEASE CAPSULES
WITH MEPROBAMATE (300 mg.)

to help establish a new dietary pattern

Contraindications: Dextro-amphetamine sulfate: in hyperexcitability and in agitated prepsychotic states. Previous allergic or idiosyncratic reactions to meprobamate.

Precautions: Use with caution in patients hypersensitive to sympathomimetic compounds, who have coronary or cardiovascular disease, or are severely hypertensive.

Dextro-amphetamine sulfate: Excessive use by unstable individuals may result in psychological dependence.

Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness.

Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.

Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

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ALLENTOWN

At Allentown Hospital, 10 A.M.–1 P.M. on dates specified; each 3 hours AAGP:

Pathology Seminars, Temple University department of pathology, and Lehigh AAGP, at Allentown Hospital, Mondays, September–June, 7:30 P.M.; 20 hours AAGP. Contact Allentown Hospital Association, Seventeenth and Chew Streets (18102).

Biliary Colic,* November 10.

Edema as a Symptom,* December 8.

FRANKLIN

A Seminar in Cardiology,* Jefferson Medical College and Pennsylvania State University, at Franklin Hospital, Franklin, Pa.; November 16, 1966; 10 A.M. to 3 P.M., AAGP 4 hours; Fee $5.00; Contact John H. Killough, M.D., Jefferson Medical College, 1025 Walnut Street, Philadelphia, Pa.

A Course in Vector-Electrocardiography, Westmoreland Hospital and Westmoreland County AGP, at Westmoreland Hospital, Greensburg, Pa.; Eighteen Tuesday evenings from 7 to 9 P.M., as follows: October 11, 18, 25; November 8 and 29; December 13 and 20; January 10, 17, 24 and 31, 1967; February 14, 1967; March 14, 21 and 28, 1967; April 11, 18 and 25, 1967; AAGP 36 hours; Contact Arthur J. McStein, M.D., Westmoreland Hospital.

HARRISBURG

Medical Lectures, Harrisburg Polyclinic Hospital and University of Pennsylvania School of Medicine, at Polyclinic, November 22, February 28, March 28, and April 25, 10 A.M.–1 P.M.; 5 hours AAGP. Contact G. F. Zerbe, M.D., 1822 Market Street, Camp Hill 17011.

JOHNSTOWN

Steroid Therapy for Arthritis, Jefferson Medical College and Pennsylvania State University, at Conemaugh Valley Memorial Hospital, Johnstown, Pa.; December 22, 1966; 7 to 9 P.M.; AAGP 2 hours; Contact John H. Killough, M.D., Jefferson Medical College, 1025 Walnut Street, Philadelphia.

PHILADELPHIA

Adrenal Gland, Jefferson Medical College and Pennsylvania State University, at Jefferson Medical College; Seven consecutive Tuesday evenings from 8 to 10 P.M., January 10, through February 21, 1967; AAGP 14 hours; Fee $40.00; Contact John H. Killough, M.D., Jefferson Medical College, 1025 Walnut Street, Philadelphia, Pa. 19107.

Bedside Diagnosis of Heart Disease, Hahnemann Medical College, at Warwick Hotel, Philadelphia; January 11-13, 1967; 9 A.M. to 5:30 P.M.; 9 A.M. to 6 P.M.; and 9 A.M. to 5 P.M.; AAGP 25½ hours; Contact Bernard L. Segal, M.D., Hahnemann Medical College, 230 North Broad Street, Philadelphia, Pa. 19102.

Theory and Application of Gas Chromatography in Industry and Medicine. Hahnemann Medical College, December 5-7, 1966. Contact Henry S. Kroman, M.D. Hahnemann Medical College, Philadelphia, Pa.

Renal Failure. Hahnemann Medical College, December 12-14, 1966. Contract Albert N. Brest, M.D., Hahnemann Medical College, Philadelphia, Pa.

Seventeenth Hahnemann Symposium, Nutritional Dysfunction, at Sheraton Hotel, in December. Donald Berkowitz, M.D., director.

General Internal Medicine, Hahnemann Medical College and Hospital, Wednesdays, October 5, 1966–March 29, 1967, 1–4 P.M.; 24 hours AAGP. Contact Drs. D. Mason, W. W. Oaks, and S. R. Bender, 230 North Broad Street (19102).

Radiology and Radioisotopes, Albert Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa.; Wednesdays, March 15 to April 12, 1967; 2 to 4 P.M.; AAGP 10 hours; Contact Leonard J. Zimet, Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa. 19141.

Psychiatry and General Practice, Einstein Medical Center, York and Tabor Roads; Fridays, January 6 to April 14, 1967; 1:30 to 4:30 P.M.; AAGP 45 hours; Contact Leonard J. Zimet, Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa. 19141.

Clinical Endocrinology, Albert Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa.; Wednesdays, February 8 to April 26, 1967; 2 to 5 P.M.; AAGP 36 hours; Contact Mr. Leonard J. Zimet, Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa. 19141.

Advanced Electrocardiography, Albert Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa.; Wednesdays, February 15 to April 19, 1967; 1 to 4 P.M.; AAGP 30 hours; Contact Mr. Leonard J. Zimet, Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa. 19141.

Advanced Seminar in Adult Office Psychiatry, Temple University Health Sciences Center, Wednesdays, October 26–January 4, 10 A.M.–1 P.M.; 30 hours AAGP. Contact H. K. Fischer, M.D., 3401 North Broad Street (19140).

Applied Office Psychiatry for Graduate Physicians, at the Institute of the Pennsylvania Hospital, Wednesdays, 3–7 P.M., September 28 through December 21; AAGP accreditation; fee, $50.

Bronchoesophagology, Drs. Charles M. Norris and Gabriel F. Tucker, Jr., November 28–December 9, 1966, and April 3–14, 1967; fee, $250. Contact Chevalier Jackson Clinic, Temple University Hospital, 3401 North Broad Street (19140).

Urgent Care of Patient With a Head Injury; Acute Management of Spinal Cord Trauma, at Altoona Hospital; December 1, 1966; 10:00 A.M. to 12:30 P.M.; AAGP 2 hours; Contact John H. Killough, M.D., 1025 Walnut Street, Philadelphia 7, Pa.

Management of the Patient With Skeletal Trama: Surgical Management of Thoracic and Abdominal Trama, at Altoona Hospital; December 15, 1966; 10:00 A.M. to 12:30 P.M.; AAGP 2 hours; Contact John H. Killough, M.D., 1025 Walnut Street, Philadelphia 7, Pa.

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* These courses sponsored by Jefferson Medical College and The Pennsylvania State University. For further course information, contact J. H. Killough, M.D., 1025 Walnut Street, Philadelphia 19107.

• **About This Section:** To be publicized, courses must be one-half day (three hours) or more in length, designed for licensed doctors of medicine, and of interest to physicians in an area of several counties or more. Information must be received by the first day of each month, to appear the following month. Each item will appear no more than four times. Address: Commission on Medical Education, Taylor By-Pass and Erford Road, Lemoyne 17043.

Microsurgery of the Temporal Bone, Temple University School of Medicine, first week of each month. Contact B. J. Ronis, M.D., Temple.

Psychiatry and Clinical Medicine for Nonpsychiatrists, University of Pennsylvania Department of Psychiatry, 2:30 P.M.–5 P.M. Wednesdays, for 20 weeks, starting September 28; fee, $75. Contact W. L. Webb, M.D., Hospital of the University of Pennsylvania, Thirty-fourth and Spruce Streets (19104).

Recent Advances in Medicine, Temple University Hospital, Wednesdays. October 26 through December 14, 11 A.M.–4 P.M.; fee, $50. Contact A. J. Finestone, M.D., Temple University Medical Center (19140).

Applied Office Psychiatry and Psychosomatic Medicine, departments of psychiatry, internal medicine, obstetrics-gynecology, and pediatrics, Temple University Medical Center, at Temple University Sciences Center, Wednesdays, October 5 through February 22, 10 A.M.–3 P.M.; 80 hours AAGP. Contact H. K. Fischer, M.D., 3401 North Broad Street (19140).

Dermatology for the General Practitioner, Thursdays, 1–3:30 P.M., September 22–December 1; 25 hours AAGP.

Clinical Allergy, Thursdays, 2–5 P.M., September 20–December 22.

Gastroenterology, Wednesdays, 2–5 P.M., September 21–December 14; 36 hours AAGP.

Basic Electrocardiography, Wednesdays, 1–4 P.M., October 12–February 1; 45 hours AAGP.

Progress in Gastroenterology, 1966. American College of Physicians, University of Pennsylvania School of Medicine, at the Annenberg School of Communications, Philadelphia. November 28-December 2, 1966.

Coronary Arteriography. Hahnemann Medical College and Hospital, Philadelphia, November 11, 1966.

Psychodynamic Implications of Physiological Studies in Dreams. Woman's Medical College, at the Eastern Pennsylvania Psychiatric Institute. November 14, 1966, starting at 9:15 A.M. Contact Department of Psychiatry and Neurology, Woman's Medical College, 3300 Henry Ave., Philadelphia, Pa. 19129.

Head and Neck Malignancies: Misericordia Hospital, Philadelphia, November 9, 1966 at 2:15 P.M. Contact C. Jules Rominger, M.D., Misericordia Hospital, Philadelphia 19143.

Mind as a Tissue. Lankenau International Research Conference, Lankenau Hospital, Philadelphia, November 10–11, 1966. Contact Division of Research, Lankenau Hospital, Lancaster and City Line Avenues, Philadelphia 19151.

PITTSBURGH

Seminars on Psychological Aspects of Medical Practice, University of Pittsburgh School of Medicine, at Staunton Clinic, December 14, 22, 10 A.M.–12 M. Contact R. A. Pittenger, M.D., 3601 Fifth Avenue (15213).

Infectious Diseases. University of Pittsburgh School of Medicine and Medical Center, Pittsburgh, Pa. December 14-17, 1966.

Man and His Chemical Environment—A Medical and Legal Problem. The Pittsburgh Institute of Legal Medicine, Pittsburgh November 11–12, 1966.

POTTSVILLE

At Pottsville Hospital, 11:30 A.M.–2 P.M. on dates specified; each 2 hours AAGP:

Fertility Control,* November 10.

WILLIAMSPORT

At Williamsport Hospital, 10 A.M.–3 P.M. on dates specified; each 4 hours AAGP:

Pain: Psyche, Soma, and Drugs,* November 16.

Ocular and Neurological Manifestations of Systemic Disease,* December 21.

WILKES-BARRE

At Wilkes-Barre General Hospital, 8 A.M.–12 M. on date specified; 3 hours AAGP:

Endocrine Aspects of Non-Endocrine Tumors,* December 15.

YORK

At York Hospital, 8 A.M.–12 M. on dates specified; fee, each course, $8.00; AAGP credit, each course, 3 hours: *

The Management of the Pulmonary Cripple During Surgery, November 3.

Digitalis and Quinidine—Who, Why, How, and When? November 10.

The Diagnosis of Renovascular Hypertension, November 17.

Problems of Surgery in Children, December 1.

Problems of the Menopause,* December 8.

READING

Liver Diseases and Miscellaneous Subjects, Hahnemann Medical College, at Community General Hospital, Wednesdays, September through May, 9:30 A.M. Contact E. L. Trexler, M.D., 15 South Franklin Street, Fleetwood 19522.

Continuing Medical Education Program, Berks County Medical Society and AGP, at Reading Hospital; December 7, 1966; January 11, February 1, March 1, April 5 and May 3, 1967; AAGP 32 hours; Contact A. A. Nagle, M.D., Stouchsburg, Pa.

SCRANTON

Psychiatry in General Practice. Mercy Hospital, Scranton, 9:30 A.M.-noon, November 16, 1966, 2 hours AAGP.*

Bedside Diagnosis of Heart Disease. Mercy Hospital, Scranton, Pa. 9:30 A.M.-noon, December 21, 1966, 2 hours AAGP. *

Neoplasms of the Uterus and Ovary, December 8.

Current Considerations in the Management of Vaginitis and Vulvar Disease, December, 15.

Digitalis and Quinidine—Who, Why, How, and When? York Hospital, York, Pa. November 10, 1966, 8 A.M.-noon, 3 hours AAGP.*

Problems of Surgery in Children. York Hospital, York. 8 A.M.-noon, December 1, 1966, 3 hours AAGP.*

NEW YORK

What the Internist Should Know About Cancer. College of Physicians and Surgeons of Columbia University, New York, N.Y. December 5-9, 1966.

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* Contact Newton O. Cattell, University Park, Pa., for additional information.

How long will it take her to recover from her hip fracture if she just doesn't care?

Does she really care? Is she alert, encouraged, positive and optimistic about getting completely well soon?

Or has she given in to the demoralizing impact of confinement, disability and dependency?

When functional fatigue complicates convalescence, Alertonic can help...

Pleasant-tasting Alertonic is pipradrol hydrochloride—an effective cerebral stimulant whose gentle analeptic action helps counteract the apathy and inertia that can often delay convalescence—together with an excellent vitamin and mineral formula, in a satisfying 15% alcohol vehicle.

Nothing fosters confidence and a sense of well-being better than your own personal warmth, understanding and encouragement together with Alertonic to help insure prompt response.

Adequate dosage is important: Prescribe Alertonic—one tablespoonful t.i.d., 30 minutes before meals...tastes best chilled.

And for your patient's sake, prescribe Alertonic in the convenient, economical one-pint bottle.

Alertonic®

Available Only On Prescription

Each 45 cc. (3 tablespoonfuls) contains: alcohol, 15%; pipradrol hydrochloride, 2 mg.; thiamine hydrochloride (vitamin B_1) (10 MDR*), 10 mg.; riboflavin (vitamin B_2) (4 MDR), 5 mg.; pyridoxine hydrochloride (vitamin B_6), 1 mg.; niacinamide (5 MDR), 50 mg.; choline,† 100 mg.; inositol,† 100 mg.; calcium glycerophosphate, 100 mg. (supplies 2% MDR for calcium and for phosphorus) and 1 mg. each of the following: cobalt (as chloride), manganese (as sulfate), magnesium (as acetate), zinc (as acetate), and molybdenum (as ammonium molybdate).

*Multiple of adult Minimum Daily Requirement supplied.
†The need for these substances in human nutrition has not been established.

Indications: 1. Functional fatigue such as that often associated with: a depressing life experience or stressful time of life; advancing years; convalescence; limited activity or confinement. 2. Poor appetite and vitamin-mineral deficiency as they occur in: patients having faulty eating habits; geriatric patients who are losing interest in food; patients convalescing from debilitating illness or surgery.

Dosage: Adults, 1 tablespoonful; children (over 15 years old), 1 to 2 teaspoonfuls; children (4 to 15 years old), 1 teaspoonful. To be taken three times daily 30 minutes before meals.

Contraindications: As with other drugs with CNS stimulating action, Alertonic is contraindicated in hyperactive, agitated or severely anxious patients and in chorea or obsessive compulsive states.

Side effects: Reports of overstimulation have been rare. Patients who are known to be unduly sensitive to the effects of stimulant drugs should be observed carefully in the initial stages of treatment.

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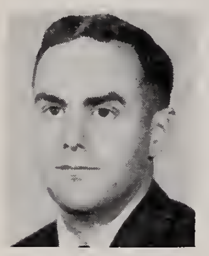
M.D.'s in The News

John A. Malcolm, Jr., M.D., has been named as Associate in the Department of Pathology at The Geisinger Medical Center. He recently completed a four year residency in anatomical and clinical pathology at the University of Colorado Medical Center, Denver and had been House Officer there in the Department of Pathology.


DR. MALCOLM

Marvin A. Rich, Ph.D., of Philadelphia's Albert Einstein Medical Center, addressed the Ninth International Congress of Microbiology, meeting in Moscow from July 24 through July 31. The scientific paper delivered by Dr. Rich before the Moscow meeting was co-authored by **Richard Siegler, M.D.,** an associate member of the Medical Center's research laboratories. Other Einstein scientists included: Samuel J. Ajl, Ph.D., director of research; Tamar Ben-Porat, Ph.D., an assistant in the department of research microbiology; Daniel A. Boroff, Ph.D., head of the research immunology laboratory; Herman Friedman, Ph.D., an associate member of the department of research microbiology; Albert S. Kaplan, Ph.D., head of the Medical Center's department of research microbiology; and George Weinbaum, Ph.D., an assistant member of the department of research biochemistry.

Dr. Robert D. Dripps, professor and chairman of the department of anesthesiology, Hospital of the University of Pennsylvania, has received the 1965 Distinguished Service Award of the American Society of Anesthesiologists, the highest honor conferred upon an anesthesiologist by the ASA for meritorious service and achievement in his specialty.

DR. DRIPPS

Dr. Leonard Bachman, director of the Division of Anesthesiology at The Children's Hospital of Philadelphia has been promoted from associate professor of anesthesia to professor of anesthesia at the University of Pennsylvania School of Medicine.

Romulo F. Gonzales, M.D. has been named Medical Director of Craig House-Technoma Workshop, a non-profit comprehensive center for emotionally disturbed children of Pittsburgh. With the appointment, he also becomes a Child Psychiatric Consultant for the Mental Health Service of the Pittsburgh City Schools.

DR. GONZALES

Dr. Thomas Woodman, Bucks County physician who has been in general practice at Point Pleasant for eight years, has been appointed to the staff of Bucks County Psychiatric Center.

Dr. Paul M. Lewis, Chairman of the Hospital Utilization Committee at Pittsburgh Hospital has been named Director of the area-wide Hospital Utilization Project: an organization seeking to eliminate duplication of hospital facilities and beds.

Dr. Lewis succeeds **Dr. Sidney Shindell,** who has resigned to become Chairman of the Department of Medicine at Marquette University in Milwaukee.

Dr. John J. Ross, Meadowbrook, has been elected as a Junior Fellow to the American College of Obstetricians and Gynecologists.

Donald A. Nagel, M.D., has been named Associate Professor of Orthopedic Surgery and Head, Section of Orthopedic Surgery at the Hahnemann Medical College and Hospital of Philadelphia.

Dr. Roberts M. Rees has been appointed executive director of clinical research of Winthrop Laboratories, it was announced by Dr. Theodore G. Klumpp, president.

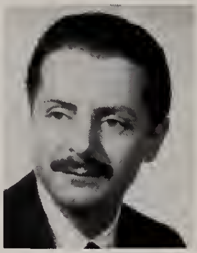
Dr. Robert I. Wise, "Magee Professor of Medicine" and head of the department of medicine at Jefferson Medical College, has been named a member of the Board of Trustees of Drexel Institute of Technology.

Perry S. MacNeal, M.D., Philadelphia, was elected Treasurer at the Annual Meeting of the American Association for the Study of Headache.

Clayton T. Beecham, M.D., Director of Gynecology and Obstetrics at The Geisinger Medical Center, was named President-elect of The American Association of Obstetricians and Gynecologists at its seventy-seventh annual meeting, recently held at Hot Springs, Virginia.

Dr. Luther W. Brady, professor of radiology, Hahnemann Medical College and Hospital, is currently on an international tour of cancer research centers and medical institutions in six countries, including Japan, India, Israel, Greece, Spain and Italy. Dr. Brady is director of radiation therapy and nuclear medicine at Hahnemann.

Dr. David Steinmuller has been named Research Associate at The Institute for Cancer Research, 7701 Burholme Ave., Philadelphia. He will work in association with **Dr. Richmond T. Prehn** in the division of pathology.


DR. STEINMULLER

Dr. Willard H. Love, Jr., is entering the private practice of orthopedic surgery on October 1 at Harrisburg. He has been a member of the Department of Orthopedics at The Geisinger Medical Center since 1949 and has directed the crippled children's clinic there since 1958.

Dr. Michael B. Shimkin has been appointed Assistant Vice-President for Research for the Temple University Health Sciences Center. Dr. Shimkin will assist in the continued development of an expanded program of research. The new position will enable him to draw upon experience gained from his 25 years at the National Cancer Institute of the Public Health Service.

DR. SHIMKIN

Dr. Howard Balin, chief of the Gynecic Research Unit of Pennsylvania Hospital, has recently been appointed consultant to the Bio-Instrumentation Laboratory in the Franklin Institute Research Laboratories apropos to his research in the area of Bio-Medical Engineering.

Deaths

○ Indicates current membership in County Medical Society, The Pennsylvania Medical Society, and The American Medical Association.

Joseph V. Marnell, Farmington; Jefferson Medical College, 1936; age 54; died August 22, 1966. Surviving are his wife, his father, and two sons.

○ **Ulrich P. Horger,** Taylor; Jefferson Medical College, 1916; age 73; died August 19, 1966. Dr. Horger was awarded the Phi Beta Kappa key while at Jefferson and was commissioned a first lieutenant in the Army Medical Corps in 1916. He served on the staffs of Taylor, Mercy, and Moses Taylor hospitals. He was honored by the Jefferson Medical School when he was presented with a 50-year gold pin. Dr. Horger was a member of the Swiss Beneficial Society and the American Legion. Survivors include a daughter, a son, four brothers and two sisters.

○ **Albanus S. Ryland,** Pottsville; Medico-Chirurgical College, 1912; age 85; died August 8, 1966. Dr. Ryland was president of the Schuylkill County Medical Society in 1926 and was awarded a plaque by the organization in 1962 for 50 years of service. A member of Pottsville Hospital staffs since 1919, he served as president of the staff in 1937, and also served as Chief of Intracranial Injuries, Skull Fractures and Traumatic Surgery. He belonged to Phi Rho Sigma Medical Fraternity. Surviving are two daughters, a brother, and a sister.

Moses Lipshutz, Philadelphia; University of Odessa, Russia; age 81; died August 24, 1966. Survivors include his wife, a son, and two daughters.

Warren Isaac Brubaker, Annville; Harvard Medical School, 1925; age 67; died August 31, 1966. Dr. Brubaker served as president of the Lebanon County Medical Society in 1934 and was a member of the Good Samaritan Hospital staff. He was also a member of the American Academy of General Practice and the American College of Allergy. His survivors include his wife, a son, a daughter, and two sisters.

Rebecca Cornfeld Reiss, Philadelphia; Women's Medical College, 1904; age 82; died August 27, 1966. Dr. Reiss had been associated with St. Luke's and Children's Medical Center, and Northern Liberties Hospital, now a part of the Einstein Medical Center. She is survived by a daughter, a brother, and three grandchildren.

○ **Harry H. Simpkins,** Philadelphia; Temple University School of Medicine, 1927; age 60; died August 7, 1966. He is survived by his wife, two sisters, and a brother.

○ **Charles Solomon,** Lilly; Georgetown University School of Medicine, 1927; age, 62; died August 14, 1966. Dr. Solomon was a member of the medical staffs at Memorial Hospital, Johnstown, and Altoona Hospital. He is survived by his brother.

○ **Burton A. Weil,** Plymouth; Jefferson Medical College, 1919; age 70, died August 16, 1966. Dr. Weil was a member of the American College of Surgeons, and was on the staff of Nesbitt Memorial Hospital. Surviving are his wife and two daughters.

○ **Wesley D. Richards,** Pittsburgh; Hahnemann Medical College, 1924; age 69; died August 17, 1966. Dr. Richards was a former chairman of the State Board of Medical Education and Licensure and a past president of the medical staff of Shadyside Hospital. He was also a past president of the County and State Homeopathic Medical Society, a member of the Pittsburgh Surgical Society, and a fellow of the American College of Surgeons. Surviving are his wife and a son.

○ **Louis Taine,** Philadelphia; University of Pennsylvania School of Medicine, 1918; age 77, died August 22, 1966. He is survived by two daughters and two sisters.

○ **George M. Piersol,** Wynnewood; University of Pennsylvania School of Medicine, 1905; age 85; died August 19, 1966. Dr. Piersol was emeritus professor of physical medicine at the University of Pennsylvania School of Medicine and a former dean of the Graduate School of Medicine. He was a fellow and former treasurer of the College of Physicians of Philadelphia and a past president of the Philadelphia County Medical Society. Dr. Piersol also served as editor for various medical journals and was a founder of the American College of Physicians. He helped found the Rehabilitation Center at the University of Pennsylvania Hospital which now carries his name. Survivors include his wife, a son, two daughters, two brothers and a sister.

○ **Wilbur A. Foster,** Mountaintop; Jefferson Medical College, 1903; age 86; died August 15, 1966. Dr. Foster was awarded a plaque by the Luzerne County Medical Society in 1953 for 50 years service. He is survived by a son and a sister.

○ **Frederick W. Dasch,** Schuylkill Haven; University of Pennsylvania School of Medicine, 1941; age 50; died August 13, 1966. Dr. Dasch was a member of American and Pennsylvania Associations of Thoracic Surgery and the American College of Surgeons. He was a veteran of World War II. Survivors include his wife, a daughter, a son and his mother.

○ **William S. Ashe,** New Kensington; University of Pittsburgh School of Medicine, 1935; age 56; died August 14, 1966. Dr. Ashe was a member of the Pittsburgh Ophthalmology Society and the Pennsylvania Association of Ophthalmology and Otolaryngology. He is survived by his wife, a daughter, two sisters and his mother.

J. Paul Austin, Chestnut Hill; University of Pennsylvania School of Medicine, 1904; age 87; died September 1, 1966. Dr. Austin was on the staff of Germantown Hospital for more than 50 years. He was commander of a hospital unit from Pennsylvania in France during World War I. A son and daughter survive.

○ **George J. Sarraf,** Pittsburgh; University of Pittsburgh School of Medicine, 1925; age 65; died September 9, 1966. Dr. Sarraf served in the State Legislature for the last 31 years. He was a retired U.S. Army brigadier general and had served in World Wars I and II. He had held the office of caucus secretary for the Democratic minority since 1961. We have received no information regarding survivors.

○ **Harry A. Schatz,** Philadelphia; University of Pennsylvania School of Medicine, 1905; age 85; died September 5, 1966. Dr. Schatz was presented a citation by the Philadelphia County Medical Society for 50 years service in 1955. He was associate professor of otolaryngology at the Graduate School of Medicine at the University of Pennsylvania. Surviving are his wife, a son, two daughters and three sisters.

○ **Harold R. Warner,** Kulpsville; Jefferson Medical College, 1924; age 67; died September 1, 1966. Dr. Warner had served as head of the obstetrics department of North Penn

Hospital for 12 years. He was a veteran of World War II. Survivors include his wife, two daughters, a brother, and two sisters.

Douglas Macfarlan, Ardmore; University of Pennsylvania School of Medicine, 1911; age 79; died September 12, 1966. Dr. Macfarlan was a member of the Philadelphia Laryngological Society, Pennsylvania Academy of Ophthalmology and Otolaryngology and a Fellow of the College of Physicians of Philadelphia. He served on the staff of Presbyterian Hospital, University of Pennsylvania Hospital and the Pennsylvania Working Home and Philadelphia Association for the Blind. Surviving are his wife, a son and a daughter.

George Lorenz, Jr., Philadelphia; Hahnemann Medical College, 1924; age 67; died September 24, 1966. Dr. Lorenz held a teaching position at Hahnemann from 1925-1959 and was a member of the American College of Gastroenterology from 1935-1964. He is survived by his wife and a daughter.

○ **Charles Holden,** Philadelphia; Hahnemann Medical College, 1899; age 88, died September 21, 1966. Dr. Holden was on the staff of St. Luke's and Children's Hospitals. He is survived by his wife.

○ **Charles E. Lawson,** Perry Point, Maryland; Hahnemann Medical College, 1928; age 62; died August 14, 1966. Dr. Lawson was chief of professional services at the Veterans Administration Hospital, Elsmere, Delaware. He is survived by his son.

Henry G. Hager, Jr., Williamsport; Jefferson Medical College, 1931; age 59, died September 5, 1966. He had been a chief of surgery at Williamsport Hospital, a chief attending surgeon at Divine Providence Hospital and a member of the surgical staff at Muncy Valley Hospital. He is survived by his wife, a son, a daughter and a sister.

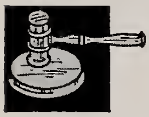
Alfred W. Friedman, Kingston; Jefferson Medical College, 1924; age 65; died September 9, 1966. Dr. Friedman belonged to numerous Hebrew philanthropic organizations. He is survived by his wife, a son, a daughter, and three sisters.

○ **Morris L. Fisher,** Philadelphia; University of Pennsylvania School of Medicine, 1928; age 66; died September 8, 1966. Dr. Fisher was on the medical staffs of the Graduate Hospital of the University of Pennsylvania and Women's Hospital. Surviving are his wife, a son, a daughter, and four sisters.

Frederick G. Robinson, Scranton; New York Medical College, 1912; age 78; died September 17, 1966. Dr. Robinson celebrated his 50th year in medicine in 1962. He served on the staff of Hahnemann Hospital, as head gastroenterologist and later as an honorary member of the staff. Surviving are his wife, a son and a daughter.

○ **Vincenza Boccella,** Philadelphia; University of Napoli, Italy, 1921; age 69; died September 16, 1966. Dr. Boccella was director of North Hills Nursing Home and a member of the American Geriatrics Society. He is survived by his wife and two sons.

○ **Thaddeus A. Salaczynski,** Nanticoke; Temple University School of Medicine, 1932; age 66; died September 15, 1966. Dr. Salaczynski was staff member of Nanticoke State General Hospital and a member of Polish National Medical and Dental Association. Surviving are his wife and daughter.



Meetings

NOVEMBER

National Conference on Dyslexia. American Committee on Optics and Visual Physiology, at Wills Eye Hospital, Philadelphia, November 18–19, 1966. Contact Chairman, National Conference on Dyslexia, Wills Eye Hospital, 1601 Spring Garden St., Philadelphia 19130.

National Conference on Work Evaluation Units, Washington, D. C., sponsored by the American Heart Association. November 17-19, 1966.

World Conference on Medical Education, Vigyan Bhawan, New Delhi, India. November 20-25, 1966.

Conference on Medical Aspects of Sports, Las Vegas, sponsored by the American Medical Association. November 27, 1966.

Assembly Planning Committee Meeting, State Office, Harrisburg, Pennsylvania Heart Association, November 9, 1966.

Personnel Committee, State Office, Harrisburg; Pennsylvania Heart Association, November 9, 1966.

Public Health Education Committee Meeting, State Office, Harrisburg, Pennsylvania Heart Association. November 10, 1966.

Fund Raising Advisory Committee Meeting, State Office, Harrisburg, Pennsylvania Heart Association, November 15, 1966.

Professional Education Committee Meeting, State Office, Harrisburg, Pennsylvania Heart Association, November 16, 1966.

Executive Committee Meeting, State Office, Harrisburg, Pennsylvania Heart Association, November 17, 1966.

Staff Conference Executive Committee Meeting, State Office, Harrisburg, Pennsylvania Heart Association, November 22, 1966.

DECEMBER

American College of Physicians Regional Meeting, Philadelphia, Pa. Contact Truman G. Schnabel, Jr., M.D., ACP Governor, Philadelphia General Hospital, 34th and Curie Ave., Philadelphia, Pa. December 1, 1966.

Air Pollution, Sheraton-Park Hotel, Washington, D. C., National Conference on Air Pollution sponsored by Public Health Service, Department of Health, Education and Welfare. December 12-14, 1966.

Medical Research Conference, Netherland Hilton Hotel, Cincinnati, Ohio. Sponsored by the Veterans Administration. November 29-December 1, 1966.

Rheumatic Fever and Congenital Heart Disease Committee Meetting, State Office, Harrisburg, Pennsylvania Heart Association, December 8, 1966.

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Each fluid ounce contains
Kaolin 6000 mg
Pectin 142.8 mg
Hyoscyamine Sulfate 0.1037 mg
Atropine Sulfate 0.0194 mg
Hyoscine Hydrobromide 0.0065 mg
Sodium Benzoate (Preservative) 60.0 mg
Alcohol 3.8 per cent
FOR RELIEF OF SIMPLE DIARRHEA
SHAKE WELL
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RICHMOND, VIRGINIA
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this part for diarrhea

Kaolin exerts a demulcent action along the gastrointestinal tract and a detoxifying action in the intestines to diminish irritation of the mucosa and lessen hyperperistalsis, nausea and diarrhea.

Pectin exerts its demulcent effect in the entire tract and its detoxifying action primarily in the large bowel to diminish irritation of the mucosa and help restore normal intestinal flora and function.

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Belladonna alkaloids as in Donnatal® relieve hypermotility of smooth muscle in the gastrointestinal tract to help control cramping, nausea, and painful straining. Many clinicians consider the belladonna components of Donnagel® to be medicine's most effective depressants of intestinal motility.[1,2] A preparation containing only kaolin and pectin, on the other hand, has "little or no effect on cramps simply because it does not include an agent with antispasmodic action."[3]

Donnagel® treats the whole diarrhea problem.

Available in new 4-ounce plastic bottle on your prescription or recommendation. Also available: Donnagel®-PG (with paregoric equivalent) and Donnagel® with Neomycin. See product literature before prescribing.

References: 1. Kramer, P., and Ingelfinger, F.J.: Med. Clin. N. Amer., *32*:1227, 1948. 2. Hock, C.W.: Clin. Med., *8*:1932, 1961. 3. Winfield, I.W.: Am. J. Gastroent., *31*:438, 1959.

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Clear the Respiratory Tract with Robitussin.

Much more than just a slogan, "clear the tract" reflects the dependable antitussive-expectorant action of the three Robitussin formulations. All contain glyceryl guaiacolate, the time-tested expectorant that greatly enhances the output of lower respiratory tract fluid. Increased RTF volume exerts a demulcent effect on the tracheobronchial mucosa, promotes ciliary action, and makes thick, inspissated mucus less viscid and easier to raise. Glyceryl guaiacolate is safe, non-narcotic, and almost universally accepted by patients of all ages.

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EXPECTORANT	●	●	●
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in each 5 cc. teaspoonful:

Glyceryl guaiacolate	100 mg.

(Alcohol 3.5%)

ROBITUSSIN® A-C
(exempt narcotic)
in each 5 cc. teaspoonful:

Glyceryl guaiacolate	100 mg.
Pheniramine maleate	7.5 mg.
Codeine phosphate	10.0 mg.

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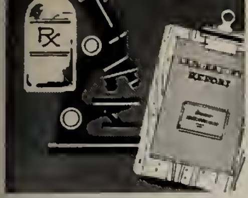

ORIGINAL PAPERS

Review

Malignant Diseases of the Blood

A report concentrating on the cooperative approach to management of therapeutic problems of patients with leukemias and lymphomas

FARID I. HAURANI, M.D., AND KAREN H. THORLING, M.D.

Philadelphia, Pennsylvania

The remarkable progress which has been achieved in the management of leukemias and lymphomas in recent years is in no small part due to the emergence of large interstate cooperative groups using controlled and reproducible therapeutic regimens. Conjoint intellectual efforts in design of studies and expedience in accumulation, analysis and dissemination of information are advantages greatly overweighing the few objections [1] to cooperative approach. These group studies are especially important when dealing with fatal diseases, such as the malignant diseases of the blood where there is little basis to be content with applying the conventional accepted treatments which are barely palliative at best.

With these perspectives in mind the Acute Leukemia Group B (A.L.G.B.) was established in 1956 to tackle some of the therapeutic problems of patients with acute leukemia. Over the years the scope evolved to include chronic leukemia, myelomatosis, malignant lymphoma and some of the solid tumors of childhood. At present the Acute Leukemia Group B is made up of members from twenty-five medical centers. Its members meet five times a year, discussing and scrutinizing results, and setting up projects and programs for future studies. The purpose of this report is not to present a comprehensive review of all the important advances in management of malignant diseases of the blood, but mainly to present the highlights of the achievements in this endeavor by the A.L.G.B., with which the authors are intimately associated.

From the inception, it was recognized that the function of this cooperative group was not only to screen new agents for antileukemic activity, but to further study certain therapeutic principles of drugs of known antileukemic activity. These efforts were to concentrate on the optimal dose, the route of administration, combination of agents, and sequence of administration of various agents in relation to the disease state. The clinical experiments have been modeled to a great extent after critical animal experiments, seeking correlation and extention of the pertinence of laboratory research for clinical application. In recent years, because of data advanced by our group and others,[2] more and more efforts are being directed against the subclinical population of leukemic cells which, no doubt, is responsible for relapse. This compels the use of larger amounts of antileukemic agents more intensely. Therefore, at present the treatment is given in three phases: induction, consolidation and maintenance. The induction treatment is directed against florid leukemic cells. The consolidation phase, which immediately follows the induction phase, is introduced to destroy the subclinical population of leukemic cells. Then a maintenance therapy is given to a portion of the patients to see if continued medication is necessary.

At present three major studies based on this concept are in progress. One study is designed for acute leukemia in children, another for acute leukemia in adults, and a third for Stage III Hodgkin's disease. In childhood leukemia considerable improvement of results concerning remission rate and survival has already been achieved (TABLE I), and the present study for acute lymphocytic leukemia in children is designed to attempt eradication of the disease through intensive treatment with methotrexate. For acute leukemia in adults, the treatment consists of several courses of combination chemotherapy (vincristine, prednisone, methotrexate and 6-mercaptopurine). Since radiation therapy is known to be very effective in early Hodgkin's disease (stage I or II), advanced Hodgkin's disease (stage III) will be treated first with chemotherapy, thus converting it to early disease, and then with radiation therapy.

Cognizance of the complications of such efforts in terms of hemorrhage and infection has made it important to improve the supporting therapy of

■ *Drs. Haurani and Thorling are associated with The Cardeza Foundation for Hematologic Research, department of medicine, Jefferson Medical College, Philadelphia.*

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these patients. Establishment of platelet transfusion centers has reduced the hemorrhagic complication. At the National Cancer Institute[3] and Roswell Park Memorial Institute[4] the incidence of death from this complication has diminished from 50 per cent to 25 percent. Combating infections during a drug induced aplasia has been a difficult problem. Antibiotics with transfusion of fresh blood or leukocyte-rich blood have not in general been of great value;[5] the application of normal bone marrow transplants has not been effective.[6] The development of isolation units in a bacteria free atmosphere hopefully may be the answer.

In the paragraphs to follow a brief report on some of the achievements made by A.L.G.B. will be presented.

Acute Leukemia

I. Sequence and Combination of Antimetabolites: [7]

Patients with acute leukemia who had received no prior therapy were randomized into three therapeutic programs. In the first program methotrexate (MTX) was administered for induction and maintenance of remission until relapse, or for forty-two days if no improvement occurred (phase 1). This phase was followed by 6-mercaptopurine (6-MP) for the same duration (phase 2). In the second program patients first received 6-MP which was followed upon relapse by MTX. In the third program, 6-MP and MTX were administered in combination. The results of incidence of remission and median duration of remission in children with acute lymphoblastic leukemia were:

	Phase 1	Phase 2	Duration
6-MP	47	44	4 to 5 months
MTX	29	21	4 to 5 months
6-MP and MTX	59	..	4 to 5 months

From these data the following conclusions could be drawn:

1. Responsiveness to a drug seemed to be unrelated to disease state, i.e. whether the drug is administered early or late in the disease, whether prior therapy has or has not been administered. Therefore new agents can be effectively studied in patients with "late" disease.

2. Unlike certain microbiological and rodent tumor systems, the development of resistance to one antimetabolite did not enhance response to another antimetabolite. In other words, there was no evidence of collateral sensitivity.

TABLE I

Survival of children with acute lymphocytic leukemia on different treatment schedules (from onset of treatment to death, life table analysis).

MTX=Methotrexate
Pred=Prednisone
6 MP=6-mercaptopurine
VCR=Vincristine

3. Combination therapy did not delay the emergence of resistance, and it seemed the drugs were additive and not synergistic. Cyclic therapy using 6-MP for one month alternating with MTX again for a period of a month did not prove to be more effective in delaying the emergence of resistance than combined therapy. Similar results were obtained with intrathecal therapy combined with MTX and 6-MP.[8]

II. Chemotherapy in Induction and Maintenance of Remission

It was appreciated that the study of new agents in acute leukemia at the time when the disease is florid is not advantageous at least for two reasons; first, the patient is often too sick and dies before receiving an adequate course of therapy, and second, too often the manifestations of disease are confused with the toxicity of the agent. Therefore, it was considered that a study designed to evaluate the effect of a drug on duration of remission when the patient for all practical purposes is healthy, was of great interest.[9] Induction of remission was accomplished with corticosteroids with a rate of remission of 67 percent. As soon as remission was obtained, a patient received placebo or 6-MP until relapse. The median duration of 6-MP maintained complete remission was thirty-three weeks, and for placebo nine weeks. Here 6-MP but not corticosteroid was effective as remission-maintaining agent.

From this study and others, it was evident that certain drugs are very effective in induction of remissions, but poor in maintaining them. Corticosteroid and vincristine can induce remissions in about 85 percent of acute lymphoblastic leukemia in children, but neither can maintain the remission for a longer time than nine to twelve weeks, almost as long as placebo.[9, 10] In addition, these agents have a number of toxic side-effects, especially on long term administration, and therefore their use for a long period of time should be avoided. Cyclophosphamide,[11] with which induction rate of complete remission in acute lymphoblastic leukemia is 18 percent, can maintain a remission for a slightly longer time (fourteen weeks). So far we have not encountered an agent that is effective in prolonging remission and yet incapable of inducing it.

III. Route and Schedule of Administration

The concept that evolved from the previous study was extended to study the effect of route and schedule of drug administration on the rate of remission induction and maintenance. Because Goldin et al.,[12, 13] using certain dose schedules of methotrexate in murine leukemia 1,210, have obtained optimal results in survival in "early" but not "advanced" disease, methotrexate was chosen to be tested in human leukemia along these lines.[14] When methotrexate was given orally daily or twice weekly parenterally there was no difference in the induction rate of remission (31 percent and 28 percent). When the remission was induced with vincristine and prednisone, however, there was a striking difference in the duration of remission if methotrexate was given twice weekly rather than daily. The median duration of remission was seventeen months for patient receiving methotrexate 30 mg/M^2 intramuscularly twice weekly as compared with 3.3 months for children receiving methotrexate 3 mg/M^2 orally per day. Eighty percent of the children treated by the intermittent regimen survive for twenty-three months or more. This remission and survival experience exceeds to our knowledge that of any other study.

IV. Acute Leukemia other than Lymphoblastic

The results of various studies in acute leukemia, other than lymphoblastic, especially in adults where they are more commonly seen, have not been encouraging. Two agents studied by this group, namely methylglyoxal bis guanylhydrazone and cytosine arabinoside have been capable of inducing remission in about 25 percent.

Lymphoma

The chemotherapeutic principles that evolved from the acute leukemia studies are being applied to the malignant lymphomas. In patients with Hodgkin's disease, who had no prior therapy, vinblastine was superior to cyclophosphamide in inducing remission (75 percent v.s. 45 percent), and complete remission was more frequent following vinblastine. The response to vinblastine or cyclophosphamide was the same regardless of the sequence of administration. The duration of remission was longer when maintained by oral cyclophosphamide (twenty-eight weeks) than by placebo (eight weeks). In lymphosarcoma, cyclophosphamide is superior to vincristine in inducing remission. The remission duration is longer when maintenance therapy with cyclophosphamide is given orally (eighteen weeks) than the duration if patient is given placebo (ten weeks). In reticulosarcoma there is no difference in remission induction whether vincristine or cyclophosphamide is used.[16]

While chemotherapy of Hodgkin's disease remains only palliative, radiation therapy cures have been achieved in patients with Hodgkin's disease of limited extent. A study is now in progress in which an attempt is made, by optimal chemotherapy, to reduce neoplastic cells in patients with Stage III Hodgkin's disease to a tumor size equivalent to tumors of Stages I and II, hoping that subsequent radiation therapy might lead to cure even in this group of patients.

Myeloma

I. Intermittent L-phenylalanine mustard

Patients with an unequivocal diagnosis of multiple myeloma were treated with L-phenylalanine mustard (Melphalan) starting with an oral loading dose given daily for seven days, followed by a rest period of at least fourteen days. Maintenance therapy was started when bone marrow recovery was clearly demonstrated by rising white blood cell and platelet counts.

The results showed[17] subjective improvement in about 65 percent of the patients. The most striking effect of the treatment was rapid decrease in bone pain, which was seen in 77 percent of the patients who had significant pain prior to treatment (68 percent became pain free). Also, marked improvement in performance status was noticed in 57 percent of patients with initial decrease in performance (44 percent returned to normal performance). Objective improvement was seen in 78 percent of the cases. Thus, two thirds of the patients had a decrease in percentage of plasma cells in the bone marrow of 50 percent or more (in 40 percent of the patients plasma cells decreased to less than 10 percent). One third of the patients with anemia had a rise in hemoglobin of 2 g. percent or more. Marked decrease in the level of serum globulin was seen in 45 percent of the patients with high serum globulin; however, complete disappearance of the paraprotein was seen in only a few cases. Most striking was the decrease in proteinuria seen in 73 percent of patients with proteinuria, often followed by improvement of renal function. Regression of bone lesions, as observed by X-ray examinations, was observed in only a few patients.

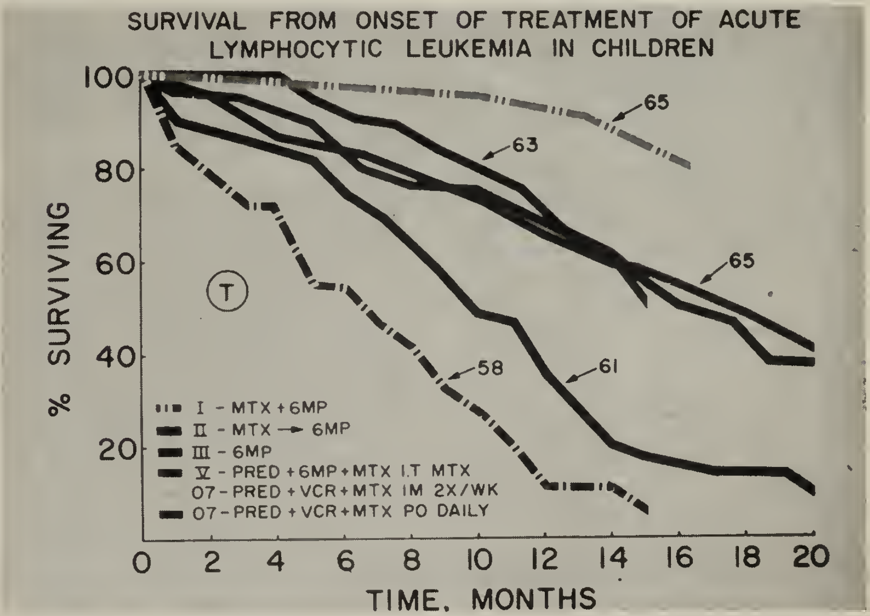

Fig. 1. Percentage survival of children in terms of time/treatment.

It was shown by comparison to a control group of patients that L-phenylalanine mustard delays progression of disease and prolongs life in patients with subjective and objective response after three months of therapy.

II. Other alkylating agents[15]

Cytoxan was given as a single dose per week at two dose levels. The treatment was effective in about 20 percent of the cases giving objective and/or subjective response.

NH_2—mustard was found inactive in multiple myeloma by the standard administration used.

L-Tryptophan mustard demonstrated activity, but at a lesser level than L-phenylalanine mustard.

III. Other chemotherapeutics

A number of compounds have been investigated. Urethane has been used in chemotherapy of multiple myeloma for nearly two decades. In a recent controlled comparative study where patients were randomized between urethane and placebo, no superiority of urethane to placebo treatment was shown, concerning subjective or objective benefits. It was found that urethane-treated patients who were azotemic had a shortened survival compared to azotemic placebo treated patients. In the non-azotemic groups no difference in survival was observed.[18]

Combination of Azaserine and Thioguanine is effective against some murine plasma cell tumors and was tried in treatment of patients with refractory multiple myeloma. The drug combination showed no significant antimyeloma activity.[15]

Streptonigrin had shown clinical effect in other human neoplastic diseases, but was in a recent study found to be of no value in the treatment of multiple myeloma.[15]

L-phenylalanine mustard is at present the best known chemotherapeutical tool for treatment of multiple myeloma and efforts are now being made to improve the results by combining L-phenylalanine-mustard with prednisone and testosterone.

In conclusion, the emergence of cooperative group studies have indeed changed the outlook in regard to the malignant diseases of the blood. Already the survival of some of these disorders has been improved upon. Now, the aim is not only in terms of palliation but hopefully in terms of cures. Extensive supporting facilities and judicial use of chemotherapeutic agents are just the starting points of these therapeutic aims.

Acknowledgments

The authors wish to thank Dr. Allan Erslev, Director of the Cardeza Foundation for Hematologic Research and Dr. James Holland, Chairman of the Acute Leukemia Group B for their critical review of this paper.

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Alfred A. Richman 1967 Essay Contest

The American College of Chest Physicians is sponsoring the Alfred A. Richman Essay Contest once again this year. The Program offers three cash awards given annually for the best essay prepared by undergraduate medical students on any phase of the diagnosis and/or treatment of chest diseases, including heart or lungs. The 1967 first prize will be $500; second prize, $300 and third prize, $200. Each winner will also receive a certificate of merit. A trophy inscribed with the name of the winner and the name of his school will be presented to the winner's school. The contest is open to undergraduate medical students throughout the world. Winners will be announced at the Thirty-Third Annual Meeting of the American College of Chest Physicians which is scheduled to be held in Atlantic City, New Jersey, on June 15 through 19, 1967.

First prize for the 1966 contest was awarded to Alan Lee Summers, Jefferson Medical College of Philadelphia, whose essay was titled "A Miniature Direct Reading, On-Line Analog Computer to Calculate Cardiac Output." To obtain an application and further information, write Mr. Murray Kornfeld, Executive Director, American College of Chest Physicians, 112 East Chestnut Street, Chicago, Illinois 60611.

Invitation to Submit Abstracts

The American Thoracic Society, The Medical Section of the National Tuberculosis Association, invites submission of papers on all scientific aspects of Tuberculosis and nontuberculous Respiratory and Cardio-Pulmonary Diseases for presentation at the 1967 Annual Meeting in Pittsburgh, scheduled to be held May 22–24. Membership in the Society is not a prerequisite to participation on the program.

Abstracts of papers should be submitted before January 5, 1967 to the Chairman of the Medical Sessions Committee, Eugene D. Robin, M.D., at the American Thoracic Society, 1790 Broadway, New York, N. Y. 10019.

Abstracts selected for presentation at the Annual Meeting will be published in The American Review of Respiratory Diseases. Medical papers presented at the meeting may be submitted to The American Review of Respiratory Diseases by the author if he so desires, for publication after the Annual Meeting. Papers presented at the meeting must be original contributions not previously presented or published.

For full information contact Dr. Robin, Chairman.

Manuscript Competition

■ Competition for a $250 award for the best manuscript submitted by a medical student, intern or resident on any subject pertinent to and concerning occupational health has been announced by the Central States Society of Industrial Medicine and Surgery. The contest closes midnight, December 31, 1966.

■ A second competition, open only to residents in occupational medicine, is announced by the Industrial Medical Association. The award will be presented at the Association's Annual Meeting to the author or authors of a paper published in the open literature on a subject germane to occupational medicine which is judged to be the most outstanding of those submitted. Reprints must be published during 1966 and submitted prior to January 15, 1967. Contest rules may be obtained from: Industrial Medical Association, 55 East Washington Street, Chicago, Illinois 60602.

Cardiovascular Briefs

Digitalis Regulation in Pediatric Practice

Part II — Digitalis Intoxication

Why is digitalis toxicity so important in pediatrics?

Since the therapeutic dosage of digitalis is so close to the toxic dose, toxicity is an ever present threat. In spite of this, it may be necessary to increase the dose of digitalis until there are signs of toxicity before the maximum effect of the drug is obtained, and a dose just below the toxic level may be needed for adequate maintenance.

Is this a dangerous way to determine dosage?

Unless one understands the drug and is watchful for signs of toxicity, this can be dangerous. Consequently, it is important to become familiar with a single digitalis preparation and to use it regularly.

What are the most common signs of digitalis intoxication?

Gastro-intestinal symptoms, such as anorexia, vomiting and, occasionally diarrhea are the most common symptoms in this age group. Bradycardia and irregular pulse may also be seen.

What arrhythmias may occur with digitalis overdosage?

Any arrhythmia may appear in a patient receiving digitalis. Arrhythmias or bradycardia should be suspected as evidence of toxicity until proved otherwise. The most common arrhythmias are premature ventricular contractions and ectopic rhythms such as atrial tachycardia or nodal tachycardia. These may be caused by A-V block which may progress to second or third degree block and be followed by ventricular tachycardia.

How can one tell if slowing of the pulse is the result of effective treatment or digitalis toxicity?

An electrocardiographic check at intervals while giving the drug may reveal important signs of digitalis effect. These may precede the development of arrhythmias and bradycardia. The ECG is most useful in detecting arrhythmias or A-V block soon after they occur. Thus slowing of the heart may be shown in the ECG to be the result of sinus rhythm or A-V block with non-conducted beats.

Is a complete tracing necessary to see these effects?

It is advisable to take all limb leads and at least one precordial lead (V-3 often shows S-T segment changes best). A longer tracing provides more opportunity to show early and variable changes in rhythm.

How does digitalis intoxication occur?

Commonly by overdosage. Remember, there are many variabilities in individual tolerance to the drug. It is possible also for an average dose to become toxic in the presence of abnormal potassium levels due to abnormal liver or renal function. Unintentional overdosage also remains a possibility with the most severe and often fatal intoxication in children resulting from accidental ingestion of large amounts of digitalis.

How can digitalis intoxication be prevented?

By the physician's knowing the preparation and its dosage as well as the rate of absorption and elimination of the drug. Always recheck written orders to make sure they are understood by the one who administers the drug. Conditions leading to the loss of potassium, such as the use of diuretics or diarrhea, etc., may lower the serum potassium level and cause toxicity. In such conditions, some potassium supplement should be given. A warning to adults to keep all drugs out of reach of children also needs emphasis.

What can be done if the patient is vomiting or if he has more severe arrhythmias?

Here intravenous therapy should be considered. If the overdosage occurred by mouth and within the past two hours, gastric lavage should be done. If the drug was injected, incision at the injection site may be made and the limb cooled and a tourniquet applied in an attempt to decrease absorption. The patient should have constant ECG monitoring to watch for arrhythmias and T-Wave changes. Frequent electrolyte studies with especial attention to potassium level should be made. Keep the serum potassium at a high but safe level. Good kidney function is necessary before potassium is given. If A-V block has already been noted, potassium therapy may be dangerous. Usually potassium is given in the form of potassium chloride, 30 to 40 millequivalents in 500 cc. of five percent dextrose water, not to exceed two meq. per kilo of body weight in 24 hours.

What additional emergency measures can be used?

The patient should be in a hospital with a physician in constant attendance. EDTA (ethylene-diamine-tetra-acetic acid) may be used as a chelating agent. If the intoxication has progressed to a state of ventricular tachycardia, procaine amide or quinidine is indicated. If these are ineffective, electric countershock may be used to try to convert to sinus rhythm. Other drugs, such as sodium dilantin, are still in the experimental stage and dosage is not yet established.

■ **William G. Leaman, Jr., M.D., questions Cora C. Lenox, M.D., Cardiac Clinic, Children's Hospital of Pittsburgh, Pittsburgh, Pennsylvania.**

William G. Leaman, Jr., M.D., Fellow, Council on Clinical Cardiology of the American Heart Association, edited this Brief for the Council on Scientific Advancement, in cooperation with the Pennsylvania Heart Association.

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SUMMARY:

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INDICATIONS: Gastrointestinal Spasm and Hypermotility.

CONTRAINDICATIONS: Pyloric obstruction, gastric retention, obstructive organic disease of the gastrointestinal tract, organic cardiospasm, duodenal stenosis, stenosing peptic ulcer, and urinary bladder neck obstruction or prostatic hypertrophy are contraindications to the use of this drug.

WARNING: Overdosage produces anticholinergic side effects. Although the animal reproduction studies are negative, until there is clinical confirmation of safety in pregnancy, this product should not be used in women who may become pregnant unless in the opinion of the physician the benefits outweigh the risks.

PRECAUTIONS: Use only with caution in patients with certain types of cardiovascular disease, since anticholinergic drugs may cause arrhythmias. Extensive clinical studies of TREST have shown no evidence of glaucoma. However, the possibility exists that it can occur since it has been reported as a characteristic side effect of anticholinergic drugs. This product does not replace definitive treatment in organic gastrointestinal disease.

SIDE EFFECTS: Side effects are generally absent when TREST is used in the recommended dosage of 1 to 2 mg. three times daily. Uncommonly, allergy or sensitivity to the drug may be manifested by generalized rash or widespread desquamation. In case of prolonged or massive overdosage, dry mouth, blurred vision, and urinary retention, typical side effects common to anticholinergic drugs, may occur. Occasionally, sensitive patients may notice mild dryness of mouth or slight blurring of vision from doses of 2 mg. or more. Most patients tolerate single doses of 5 mg. without such side effects.

DOSAGE: The usual adult dosage is 1 mg. by mouth three times daily. If necessary, the dose may be increased to 2 mg. three times daily. Pediatric dosage has not been determined.

CAUTION: Federal law prohibits dispensing without prescription.

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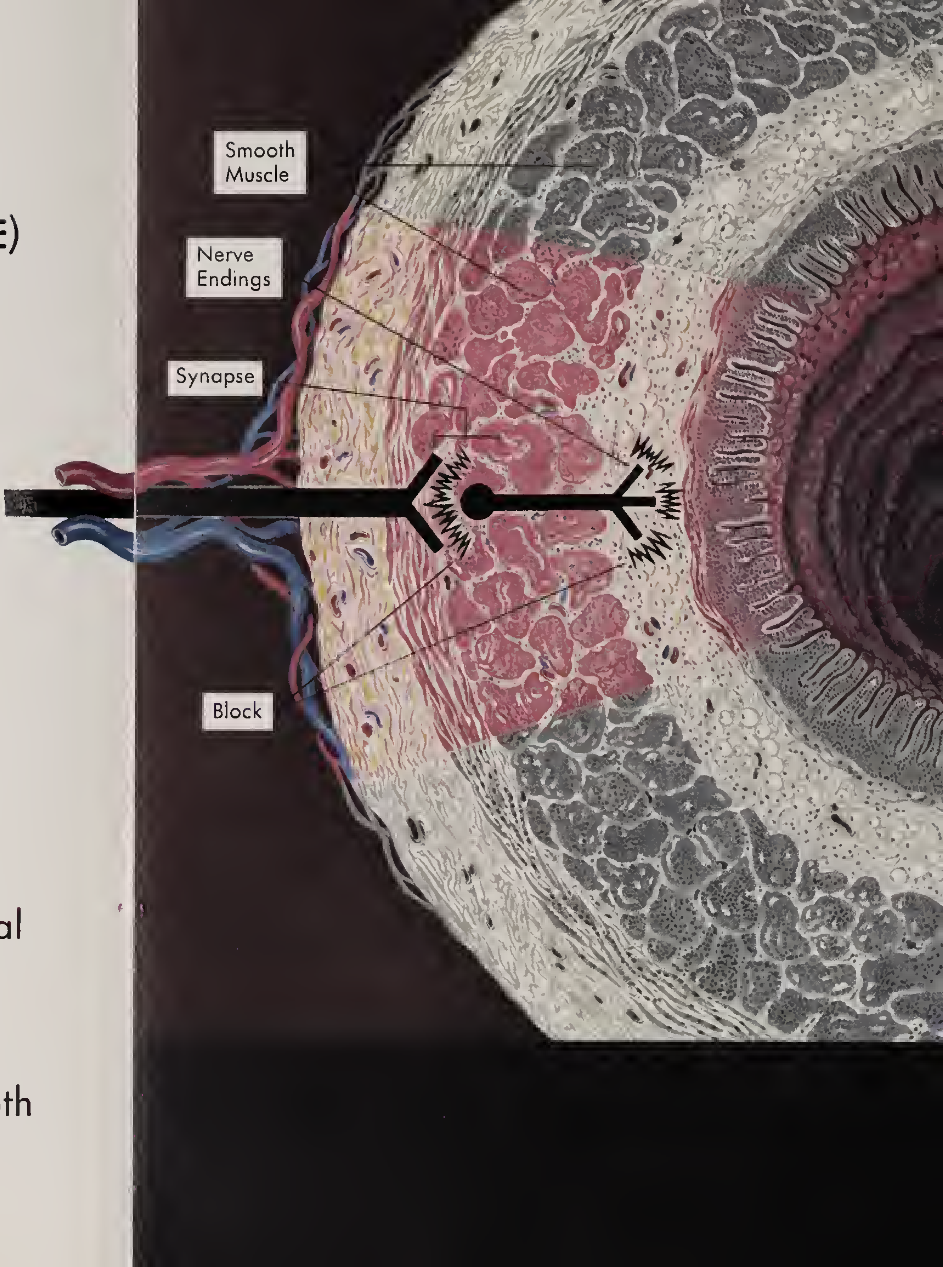

TREST (methixene hydrochloride) directly antagonizes the parasympathetic nervous system.

TREST (methixene hydrochloride) blocks the action of acetylcholine formed at the synapses and visceral parasympathetic nerve endings.

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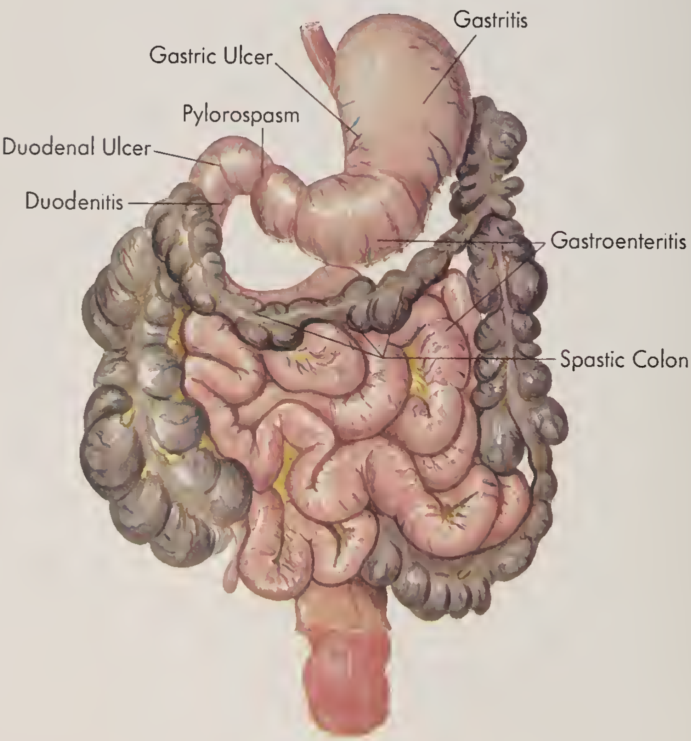

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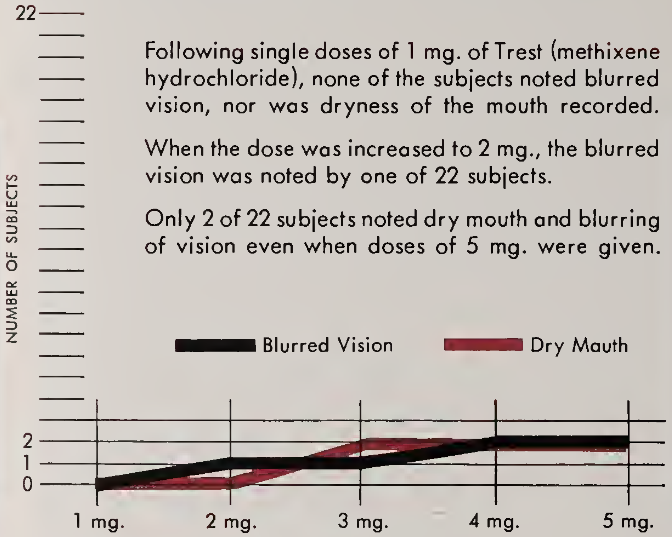
Following single doses of 1 mg. of Trest (methixene hydrochloride), none of the subjects noted blurred vision, nor was dryness of the mouth recorded.

When the dose was increased to 2 mg., the blurred vision was noted by one of 22 subjects.

Only 2 of 22 subjects noted dry mouth and blurring of vision even when doses of 5 mg. were given.



Conclusion: Typical atropine-like side effects are not expected when Trest is used 1 mg. t.i.d. These effects are uncommon when the dosage is increased to 2 mg. t.i.d.

"A highly satisfactory symptomatic response was obtained in 20 of the 23 patients who took 1 mg. of methixene hydrochloride (Trest) by mouth three times daily. No side effects occurred at this dosage during administration of the medication itself.

"Methixene hydrochloride (Trest) provides highly gratifying symptomatic relief in a variety of conditions associated with gastrointestinal motility without producing the usual atropine-like side effects and without requiring concurrent barbiturate sedation."

—Martins, J. K.:
Clin. Med. 72:1313-1316
(Aug.) 1965.

". . . in a series of 47 patients suffering from various types of functional bowel distress. The superiority of this drug (Trest) in dosage of 1.0 mg. three times daily by mouth over the placebo is statistically significant. At that dosage level, side effects were not observed."

—Hufford, A. R.:
Clin. Med. 72:1151-1155
(July) 1965.

Neurological and Sensory Manpower In Pennsylvania

An endeavor to collect, analyze, and interpret neuro-sensory diseases data in this state. and to identify services available for treatment

C. EARL ALBRECHT, M.D. AND JEROME JACOBS, M.A.

Philadelphia, Pennsylvania

Over the last several years, considerable interest has developed regarding the extent of neurological and sensory disorders and the availability of resources for their management. As a result of major advances in diagnostic, treatment and rehabilitation procedures, these disorders of the central nervous system and sensory organs can often be arrested in their early stages and, with the application of therapeutic techniques, disability can be substantially reduced. The health care potential of the neurologically impaired individual has rapidly expanded and promises major advances in the near future. The primary challenge in providing health care for the neuro-sensory patient is fast becoming one of applying new knowledge and techniques through extremely limited manpower and facilities. Very few fields of medical research and treatment have experienced a greater discrepency between the accumulation of new knowledge and its application. It is primarily to bridge the gap between the actual and potential use of new health care methods that several surveys and special studies have been conducted throughout the nation on the availability and utilization of resources for the neurologically and sensorially impaired individual.

During 1963 and 1964, the Department of Preventive Medicine at Jefferson Medical College and the Pennsylvania Department of Health jointly undertook a study of the facilities and personnel available to diagnose and treat neurological and sensory diseases in Pennsylvania, southern New Jersey and Delaware. This project was financed by grants from the Neurological and Sensory Disease Service Program, Office of Chronic Diseases, Bureau of State Services, U.S. Public Health Service. The Pennsylvania Department of Health received a grant, as did Jefferson Medical College. Shortly after the approval of the project grants, the Pennsylvania Department of Health and Jefferson Medical College entered into a contractural agreement under which a portion of the State funds were assigned for staff and facilities based at Jefferson.

The basic objectives of this joint endeavor were to collect, analyze and interpret data on the extent of neuro-sensory diseases in the tri-state region and to identify available services for prevention, diagnosis, treatment, and rehabilitation. To attain these objectives, it was necessary to determine the number and distribution of medical and para-medical specialists, as well as all specialized facilities for patient care. Based on such an array of information, it would be possible to identify current gaps in services and to recommend and develop necessary plans to overcome deficiencies facing both patients and physicians in neurological and sensory fields. An additional goal of particular importance to Jefferson was to explore the feasibility of developing a comprehensive neurological and sensory disease center at Jefferson capable of meeting the needs of a tri-state region.

The Neurological and Sensory Disease Study was the first attempt on a broad scale to determine the extent of neuro-sensory problems throughout Pennsylvania, Delaware and southern New Jersey. This study, which was published in October, 1964, serves as a benchmark for identifying the extent of neurological and sensory conditions throughout the region, as well as the availability of health care facilities and manpower for their control. The tri-state assessment has pointed up the extensive utilization of in-patient hospital facilities and private physician services for neuro-sensory patients. It has also documented the near absence and maldistribution of specialized resources throughout the area. Based upon the opinions of several hundred physicians and health agency personnel, a widespread concern about these problems has been documented. Many knowledgable practitioners and community leaders have expressed their belief that steps should be taken to augment the supply of these critical resources.

It is not the purpose of this paper to discuss the many aspects of the entire study, but rather to focus upon medical manpower resources and training programs in neurology, neurosurgery, ophthalmology, and otolaryngology in Pennsylvania. How does Pennsylvania compare nationally in the ratio of specialized medical manpower to population on both a statewide basis and locally? Also, what has been the trend in residencies in these fields and is Pennsylvania keeping up with the national output?

The two-volume *Neurological and Sensory Disease Study*, containing analyses of manpower, hospital utilization, related demographic and public health statistics, state and voluntary agencies as well as special surveys in mental retardation and speech and hearing, comprise the report. Conclusions and recommendations for statewide programs and for the establishment of a comprehensive neurological and sensory disease center are also included. Copies of the two-volume report are in limited supply. They are

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available, however, in the libraries of the Pennsylvania Department of Health, the Philadelphia College of Physicians, and the Jefferson Medical College. A summary volume is available on request and can be obtained by writing to Dr. C. Earl Albrecht, Professor of Preventive Medicine, Jefferson Medical College, Philadelphia.

Neurology: Current Resources

As of January, 1964 there were eighty-four physicians in Pennsylvania who classified themselves as neurologists, or one neurologist for approximately 135,400 persons. This ratio is based on the estimated 1962 population. This group includes all those in private practice, full-time on hospital staffs and medical school facilities, those in research and preventive medicine, and federal physicians; residents are excluded. Including the eighteen reported residents, all but one of whom were in the Philadelphia area, there were 102 neurologists, or one per approximately 111,500 persons. At the time, the total number of neurologists in the nation was 1,315, or one for about 140,300 persons. This ratio is also based on the number of U.S. physicians who classify themselves as neurologists and estimated 1962 population. With residents included, the ratio was about 103,200 persons for each neurologist. Fig. 4 illustrates these State-national comparisons by rate per 100,000 population for all neurologists and for those who were certified. In Pennsylvania, fifty of the eighty-four (59.5 percent) were certified by the American Board of Psychiatry and Neurology, and one was certified by another board.

Pennsylvania, with about 6 percent of the population of the U.S., had approximately 6 percent of the federal and non-federal neurologists in the country. As will be discussed later, however, the great majority of the state's neurologists are located in one area.

Of the eighty-four neurologists, forty-one, or only 49 percent, were in private practice, with the following other types of activity reported by the remaining forty-three:

full-time hospital staff (federal and non-federal)	19
clinic or physician employed	4
full-time medical school faculty	13
research	6
preventive medicine	1

A graphic portrayal of the different types of practice in the four neurosensory specialties may be seen in Fig. 1.

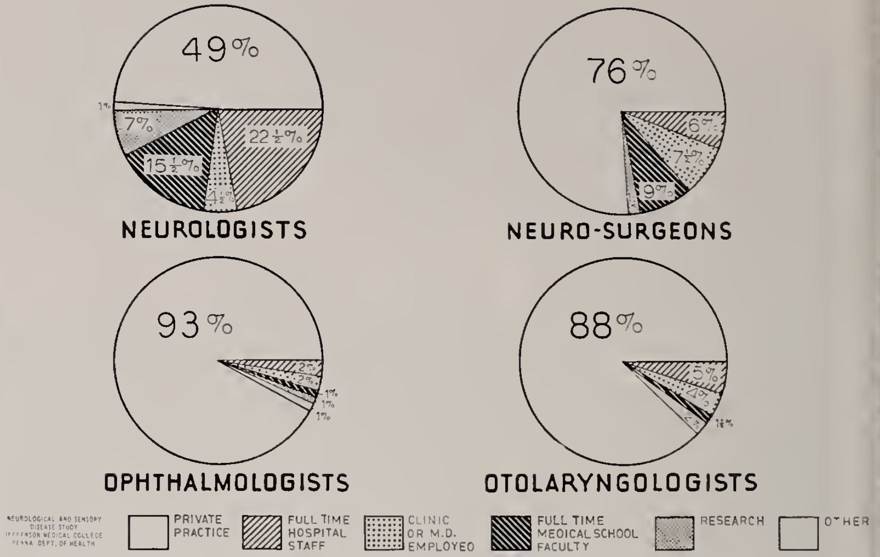

Fig. 1. Pennsylvania Specialists by Type of Practice, 1964.

Since the location of the specialists under study becomes a vital factor in determining availability to the public, the state was divided into eleven analysis areas which closely conform to hospital planning districts.[1]

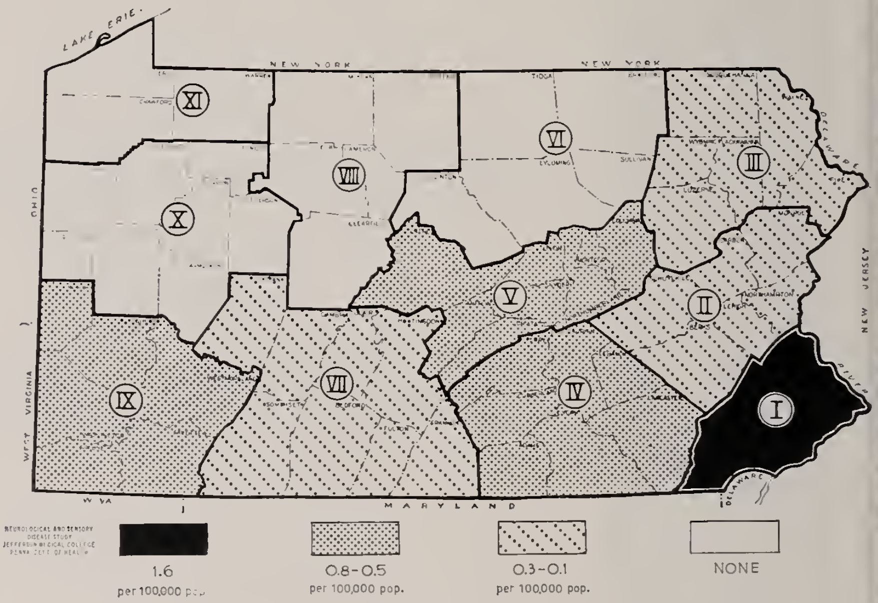

Fig. 2. Distribution of Neurologists in Pennsylvania, 1964.

The geographical distribution of neurologists in Pennsylvania is very uneven, as it is throughout the nation. Including those in all types of practice, 58, or 69 percent, were located in the Philadelphia area where the ratio of neurologists to population is about one to 62,000. The Pittsburgh area had fourteen neurologists, with a population ratio of 186,500 to one. Four areas, (VI,VIII, X and XI) had no neurologists, while three areas (II, III and VII) had two or less. Areas IV and V had five and three, respectively.

The number of persons per neurologist ranged from 975,700 to 121,900 in the ten areas exclusive of Area 1. Fig. 2, which is based on the rate per 100,000 population for each analysis area, illustrates the severely uneven geographic distribution within this specialty.

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[1] *Pennsylvania State Plan for Hospital and Medical Facilities*, Department of Public Welfare, Harrisburg, Pennsylvania.

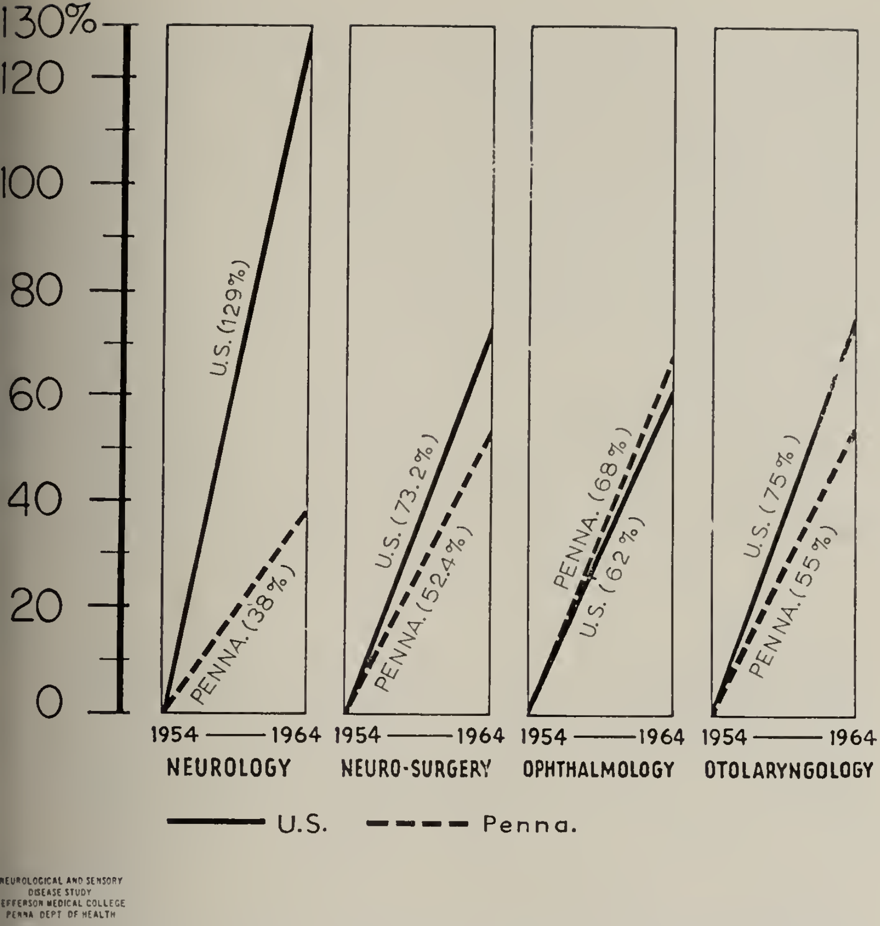

Fig. 3. Percent Increase in Residencies Offered 1954-1964, Pennsylvania and U.S.

When the "area" approach is used in terms of neurologists reporting themselves to be in full-time private practice, Area I, with 41 percent, contains a smaller proportion than the state as a whole, while almost 86 percent of Area IX neurologists are in full-time private practice. Neurologists not in full-time private practice may be less available as a resource for the total community's patient care needs, particularly if they have identified their major activity as research or preventive medicine. This also pertains to those who are full-time staff in federal hospitals; in Pennsylvania all of these were located in Veterans Administration hospitals.

Future Needs

The *Interim Report on the Status of Manpower and Training in Neurological and Sensory Diseases*[2] contains estimates of the number of additional neurologists necessary to maintain the current level of service as measured by population-manpower ratios. At the time of its preparation, using January, 1962 information, there were 1,159 neurologists nationally, including 386 in residencies. The following is quoted from that report:

"Future population predictions indicate that the number of neurologists will have to increase substantially within the next few years in order to maintain even the current level of service. If the number of neurologists continues to increase as in 1955-1961, there will be enough in the future to maintain the current level of service. Based on the U.S. Census Bureau's 20-year population forecast, and the number of non-federal neurologists in 1962, we will need:

81 more in 1965
197 more in 1970
336 more in 1975
487 more in 1980

However, one of the problems is that many of these specialists enter research instead of clinical practice."

Minimum future needs for Pennsylvania have been developed by using the total number of neurologists, federal and non-federal, and the state's projected population increases. In order to maintain the current level of service for the state as a whole, we will need:

91 by 1970
95 by 1975
100 by 1980

Estimated needs for Pennsylvania as a whole are misleading, however, and must be examined in terms of current and future distribution by area.

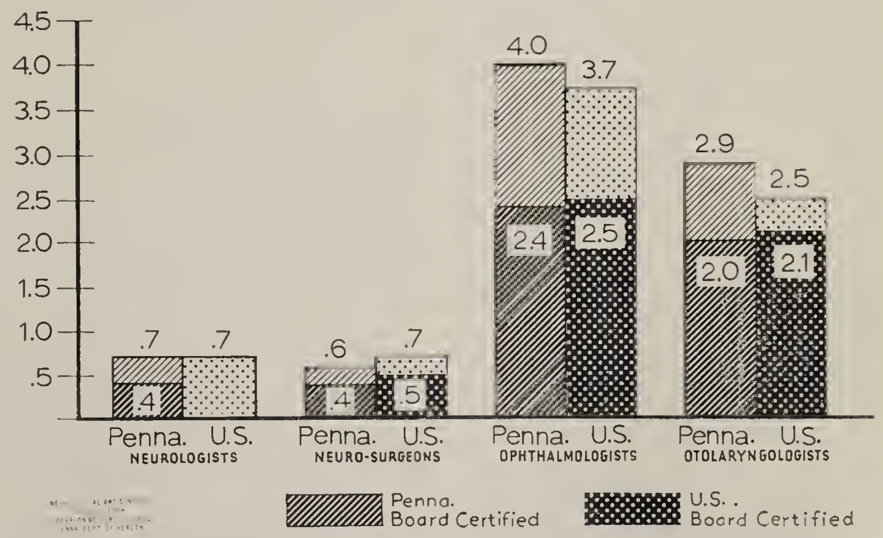

Fig. 4. Specialists—Rate per 100,000 Population, Pennsylvania and U.S., January, 1964.

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[2] *Interim Report on the Status of Manpower and Training in Neurological and Sensory Diseases*, Neurological and Sensory Disease Service, U.S. Public Health Service, 1962.

Training

In January, 1964 there were eighteen physicians who classified themselves as residents or fellows in hospital service in neurology in Pennsylvania. Seventeen were located in Philadelphia where twenty-six neurology residencies were offered for the 1963-1964 year. The other was in the Pittsburgh area where there were no approved neurology residencies; he is therefore presumed to be a fellow.

The dramatic percentage increase of neurology residencies offered in the U.S. in the decade 1954-1964 is illustrated in Fig. 3. The comparable Pennsylvania increase, also shown, indicated a considerable disparity in these growth records. While the national number of offered residencies climbed from 270 in 1954 to 619 in 1964-65 (129 percent), Pennsylvania offered twenty-one approved residencies in 1954 and twenty-eight in 1964-65, an increase of only 38 percent.

Neurological Surgery: Current Resources

Sixty-seven physicians classified themselves as neuro-surgeons as of January, 1964, a ratio of approximately one for every 169,800 Pennsylvania residents. This includes all practicing federal and non-federal physicians, and excludes those in residency training programs. In the nation as a whole there were 1,371 neuro-surgeons, and the ratio was one for every 134,600 persons. With residents included there were ninety-two neuro-surgeons in Pennsylvania, or about one for each 123,600 persons; nationally there were 1,817 neuro-surgeons, or about one for each 101,500 persons. Fig. 4 illustrates the Pennsylvania and U.S. rates per 100,000 population for all neuro-surgeons and for those who were board certified. In Pennsylvania, forty-two (almost 63 percent) were certified by the American Board of Neurological Surgery, and one was certified by another board. In the U.S., 944 (almost 69 percent) were certified by the American Board of Neurological Surgery.

As illustrated in Fig. 2, 76 percent of Pennsylvania's neuro-surgeons were in private practice, with the others stating their principal activity as:

full-time hospital staff (all non-federal)	4
clinic or physician employed	5
full-time medical school faculty	6
research	1

Areas I and IX with 50 percent and 19 percent respectively have a substantial majority of Pennsylvania's neuro-surgeons. Two areas were without any neuro-surgeons, VIII and X. In the remaining seven areas, the number of neuro-surgeons ranged from seven to one. In terms of the ratio of population to each neuro-surgeon, the range was from 110,000 in Area I, to 677,100 in Area VII. Fig. 5 illustrates the area distribution of neuro-surgeons based on the rate per 100,000 population.

Future Needs

The *Interim Report* does not provide estimates of future needs for neuro-surgeons. However, using the population forecasts developed by the Pennsylvania State Planning Board, we can project the number of neuro-surgeons which will be needed just to maintain service at its present level in this State. Based on the number of neuro-surgeons practicing in Pennsylvania in January, 1964, we will need:

71 by 1970
76 by 1975
80 by 1980.

Needless to say, these are minimum figures at best, and attention should be given to the need for service in parts of the state where neuro-surgeons are non-existent or in short supply.

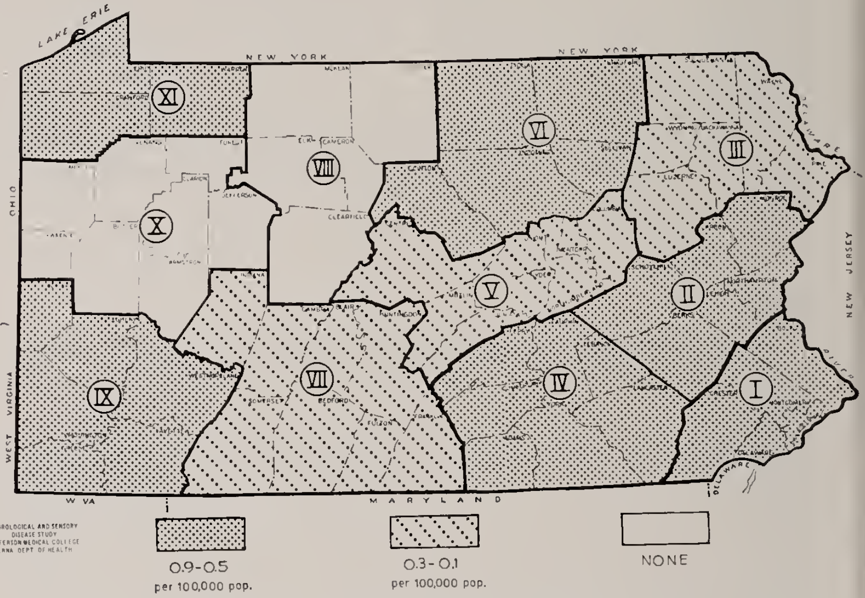

Fig. 5. Distribution of Neuro-Surgeons in Pennsylvania, 1964.

Training

Twenty-five physicians in Pennsylvania identified themselves as residents or fellows in neurological surgery in January, 1964. Seventeen were located in Philadelphia and seven in Pittsburgh.

While the number of residencies offered in neurological surgery increased by 52.4 percent in Pennsylvania between 1954-1964, this represents a much slower growth than for the nation as a whole. As Fig. 3 indicates, the national growth line indicates a 73.2 percent increase.

Ophthalmology: Current Resources

As of January, 1964 there were 452 ophthalmologists practicing in Pennsylvania. This group represents over 6 percent of all ophthalmologists in the United States, approximating the state's proportion of national population. The ratio of ophthalmologists to the state population was about one to 25,100, while for the nation it was approximately one to 26,800. With residents included, these ratios are reduced to one to 21,700 persons in Pennsylvania, and one to 23,500 persons nationally. The proportion of all practicing physicians who are ophthalmologists is about 3 percent in Pennsylvania and nationally.

Fig. 4 shows state and national comparisons based on the rate per 100,000 population for all ophthalmologists and for those who were board certified. In Pennsylvania, 276, or 61 percent were certified by the American Board of Ophthalmology, and twenty were certified by other boards.

The proportion of Pennsylvania oph-

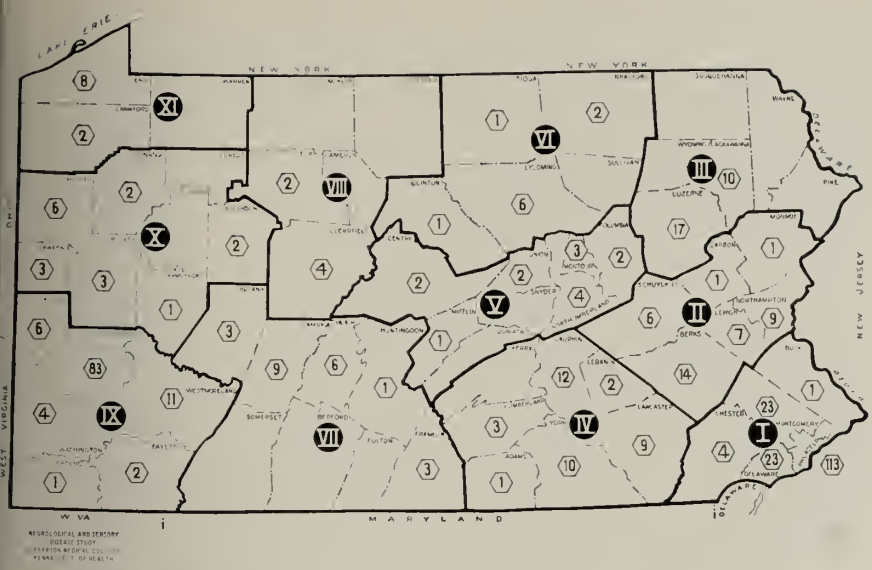

Fig. 6. Distribution of Ophthalmologists in Pennsylvania, 1964.

thalmologists whose primary activity was reported as private practice was 93 percent. The others were as follows:

full-time federal and non-federal hospital staff	11
employed by clinics or physicians	11
full-time medical school faculty	3
research	3
preventive medicine	1

other:

other educational institutions	1
industry	1
non-federal public health departments	1

Fig. 2 compares this with comparable data on the other specialties.

Throughout the state, the ratio of ophthalmologists to the area populations ranged from one to 22,100 in Area I, to one to 37,500 in Area XI. Fig. 6 shows the location of ophthalmologists by county.

Future Needs

The Interim Report on the Status of Manpower and Training in Neurological and Sensory Diseases discusses desirable population ratios for ophthalmologists for the present, and projects needs for the future. The following is quoted from that report:

"As of January, 1962, on a national basis, there were 7,359 ophthalmologists, or one for every 24,861 persons. Excluding the federal physicians . . . the ratio of ophthalmologists to general population was one to 25,700. This approaches the desired ratio of one to 20,000 suggested by the Sherman Report . . . In order to maintain the current level of service, the number of ophthalmologists will have to be increased in future years because of population growth. Compared to the number of non-federal ophthalmologists in 1962, we will need:

493 more in 1965
1,197 more in 1970
1,971 more in 1975
2,957 more in 1980.

If the number of ophthalmologists increases at its current rate in the future, there will be enough to serve the increase in population."

In order to achieve the ratio of one to twenty thousand suggested above as the population increases in Pennsylvania in the next few years, we will need:

613 in 1970
644 in 1975
680 in 1980.

Training

In January, 1964, seventy-two Pennsylvania physicians classified themselves as residents or fellows in ophthalmology. Fifty-six were located in Philadelphia where sixty-one approved residencies were offered for the 1963-64 year. Two were in Danville where three were offered, and thirteen were in Pittsburgh where fifteen were offered.

A similar level in the growth of ophthalmology residencies for the state and nation may be noted on Fig. 3. Between 1954-1964 the national increase equalled 68 percent while the number of offered residencies in Pennsylvania grew by 62 percent. In 1964-65, eighty-four approved residencies in ophthalmology were offered in Pennsylvania.

Otolaryngology: Current Resources

In January, 1964 there were 335 otolaryngologists in Pennsylvania, one for approximately 33,900 persons. When residents are included the ratio is about one to 30,900. The total number of all such federal and non-federal otolaryngologists in the United States at the same time was 4,593 excluding residents and 5,166 with residents included. Nationally, the population ratios were about one to 40,100 without residents, and one to 35,700 with residents. Fig. 4 shows the state-national comparisons excluding residents, and also compares board certified specialists by rate.

Those reported certified by the American Board of Otolaryngology were 232, or 69 percent in Pennsylvania; two were certified by other boards. As previously noted, certification by more than one board is not reported here.

Those in private practice in Pennsylvania constituted almost 88 percent of all otolaryngologists. Others reported their primary activity as:

full-time hospital staff (federal and non-federal)	16
clinic or physician employed	13
full-time medical school faculty	5
preventive medicine	1

other:

non-federal public health departments	2
other educational institutions	2
industry	2

The proportion of the total represented by these categories is illustrated in Fig. 1.

The geographic distribution of otolaryngologists in Pennsylvania is shown by county in Fig. 7. The range of population ratios by analysis areas is one to 23,700 in Area I, to one to sixty-six thousand in Area VIII. All areas had otolaryngologists available.

Future Needs

In the section on otolaryngology in the *Interim Report on the Status of Manpower and Training in Neurological and Sensory Diseases*, a ratio of

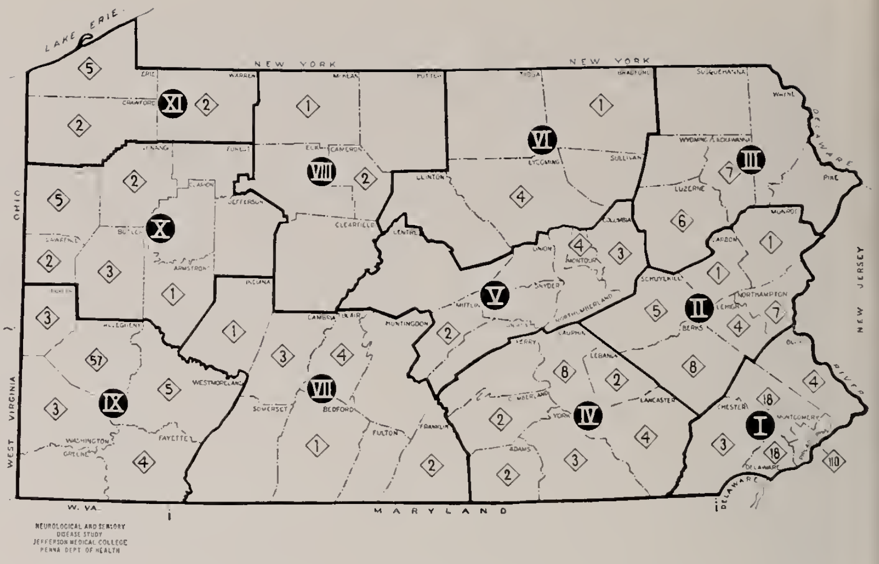

Fig. 7. Distribution of Otolaryngologists in Pennsylvania, 1964.

one for every 33,800 persons was reported in January, 1962. The discussion continued as follows:

"Excluding the federal specialists, there were 5,118 or one for every 35,400 persons . . . Of the neurosensory specialties, otolaryngology comes closest to the desired ratio suggested by the Sherman Report, which, for otolaryngology, is one to 34,000 . . . In order to keep up with the current level of service in the future, we will need non-federal otolaryngologists (as compared to 1962) as follows:

358 more in 1965
870 more in 1970
1,484 more in 1975
2,150 more in 1980.

If the current rate of increase in the number of otolaryngologists continues, we will be able to maintain the level of service desired for the increased population."

Based on the total (federal and non-federal) otolaryngologists in Pennsylvania in January, 1964 and the State Planning Board's population forecasts, future needs for otolaryngologists can be projected for the state. To maintain the current ratio, which approximates that suggested by the Sherman Report, we will need:

26 more in 1970
44 more in 1975
65 more in 1980.

Training

In January, 1964 there were thirty-two residents or fellows in hospital service in otolaryngology in Pennsylvania. Nineteen were in Philadelphia where twenty-seven residencies were offered. There were four residents in Danville, and eight in Pittsburgh where four and thirteen residencies were being offered, respectively.

The ten years, 1954 to 1964, have seen a 75 percent increase in the number of otolaryngology residencies offered nationally. In Pennsylvania, the increase during the same period has been 55 percent as shown in Fig. 3.

Summary and Conclusions

Several facts seem clear in an analysis of the extent and distribution of Pennsylvania medical specialists in neurological and sensory fields. First, there is a close similarity between the ratios of specialists to population in the state and nation. Pennsylvania is somewhat ahead of national ratios for ophthalmologists and otolaryngologists and nearly even for neurologists and neuro-surgeons. Fewer Pennsylvania specialists have board certification than has been found nationally.

A problem of greater urgency regarding the supply of neuro-sensory specialists is the severely unbalanced distribution of neurologists and neuro-surgeons throughout the state. Of the eighty-six neurologists, a total of fifty-eight were located in either Philadelphia or Pittsburgh, with most of the remainder clustered in adjoining counties. The distribution of neuro-surgeons presents a highly similar pattern, with thirty-seven of sixty-seven practicing in these two cities. Ophthalmologists and otolaryngologists are more evenly distributed although board certified specialists are heavily concentrated in the Philadelphia area. In several areas of Pennsylvania there are upwards of 80 thousand persons to one certified otolaryngologist while the ratio is one to 34 thousand in the Philadelphia area.

There are several factors which would indicate that Pennsylvania is suffering from a current shortage of specialists in neuro-sensory fields and that this shortage may become more acute during the next several years. For example, for the state as a whole there was one ophthalmologist for each 25 thousand persons in 1964, rising to one to 41 thousand when only board certified specialists are included. A desired ratio of ophthalmologists to population is one to 20 thousand. In terms of the statewide ratio of one otolaryngologist to 34 thousand population, it appears that Pennsylvania has reached the desired goal. However, a ratio of population to board certified otolaryngologists sets the figure at one to 49 thousand.

Although there were eighty-four physicians in Pennsylvania in 1964 who limited their practice to neurology, fifty were boarded. In addition, half of the state's neurologists were engaged in pursuits other than private practice, reducing their availability to the general public. If the production of board certified neurologists is considered as the appropriate goal, then Pennsylvania must add as many as fifty to its ranks by 1980 or twice the number now available. Similarly, it will be necessary to double the number of board certified neuro-surgeons by 1980 if the same desired level is to be reached.

As regards the future production of specialists, it should be noted that residencies in neurological and sensory fields in Pennsylvania have been trailing behind the national increase, and by September, 1966 there was no significant improvement. Only in ophthalmology has the national growth in offered residencies approximated the state experience. In neurology, on the other hand, the growth in residencies has been at a comparative standstill between 1954-1964. Such residencies have increased by 129 percent throughout the country during this period, while in Pennsylvania they have risen by only 38 percent.

Based upon data available in September, 1966, indicating twenty-six residents in neurology, no significant growth can be noted. Similarly, there has been no expansion in the training of neuro-surgeons as evidenced by the thirty-two presently in training. This same number was offered in 1964. Otolaryngology shows no increase, with forty-six residencies filled in 1966 compared with forty-five offered in 1964.

Thus, numerically, there was little or no progress during the last few years in the training of neuro-sensory specialists in Pennsylvania's six medical schools and teaching hospitals. But, it may be too early to expect any increase since residency programs are dependent upon faculty, teaching and patient facilities. Some encouraging developments are underway in Pennsylvania medical schools, however, for the strengthening of faculty in these specialties and for the planning of more patient facilities. It must be concluded, however, as of September, 1966, much more needs to be done to expand medical manpower resources in Pennsylvania.

Medical Serendipity

The outcome of medical research is not always predictable. Just as in other areas of life, many useful discoveries have come about through the serendipity route. In an article published in *Transactions and Studies of the College of Physicians of Philadelphia,* Ronald E. Rossman, M.D., mentions a number of such discoveries, including the following:

"The sensitizing effect of Antabuse (tetrethylthiruamdisulfide, or TETD) to ethyl alcohol was discovered accidentally by Hald and Jacobsen. This compound had been used in the rubber industry as an anti-oxidant. 'Although workers exposed to it develop hypersensitivity to ethyl alcohol, no published report on the subject appeared until two Danish physicians who had taken TETD in the course of an investigation of its potential anthelminthic usefulness, became ill at a cocktail party. Quick to realize that the TETD had altered their response to alcohol, they then initiated a series of pharmacological and clinical studies which provided the basis for the use of TETD as an adjunct in the treatment of chronic alcoholism.'

"Benzedrine (amphetamine) was originally developed by Smith, Kline & French Laboratories as a nasal decongestant. However, it had some disturbing effects: central nervous system stimulation, and anorexia. Nevertheless, someone with insight suggested that these effects might be profitable, and that the drug might have some psychiatric use. This was found to be the case, and today Benzedrine is used therapeutically for the treatment of mild depression or overweight.

"Izoniazid, one of the most effective drugs for the chemotherapy of tuberculosis, was discovered accidentally. In 1945, Chorine reported the nicotinimide was tuberculostatic. Further studies of the structure-activity relationship of related compounds revealed that isonicotinic acid derivatives possessed tuberculostatic activity. Since thiosemicarbazones were also known to be tuberculostatic, an attempt was made to synthesize and study the thiosemicarbazone of isonicotinic acid. Although the thiosemicarbazide, which was the objective of the synthesis, did not possess outstanding activity, the intermediary, isoniazid, was found to be more potent as a tuberculostatic agent than any known substance, synthetic or antibiotic."

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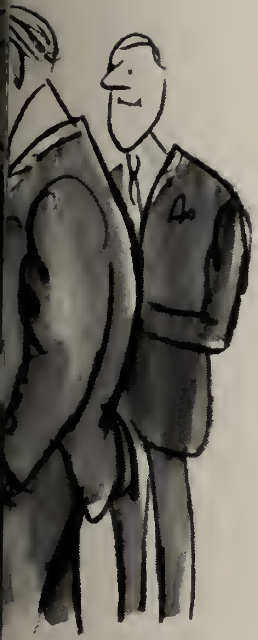

Well, Doctor Cunningham, I was just telling Herbert I should talk to you about my cough. It comes from down here and…

Chances are the symptom recital may prove to be as difficult to control as the cough. If it's the useless, exhausting type of cough that often accompanies respiratory infection or allergy, you can provide prompt relief with Novahistine DH. Its decongestant-antitussive action controls frequency and intensity of cough spasms without abolishing cough reflex. And the fresh, grape flavor of Novahistine DH appeals to children and adults alike.

When your diagnosis is bronchitis, complicated by thick tenacious exudates, Novahistine Expectorant is particularly useful. It not only provides decongestive action and controls the cough, but also encourages expectoration, thus easing bronchial obstruction.

Use with caution in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Ambulatory patients should be advised that drowsiness may result. Continuous dosage over an extended period is contraindicated since codeine phosphate may cause addiction.

Each 5 ml. teaspoonful of Novahistine DH contains codeine phosphate, 10 mg. (Warning: may be habit forming); phenylephrine hydrochloride, 10 mg.; chlorpheniramine maleate 2 mg.; chloroform (approx.), 13.5 mg.; l-menthol, 1 mg. (Alcohol 5%). Each 5 ml. of Novahistine Expectorant contains the above ingredients and, in addition, glyceryl guaiacolate, 100 mg.

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CANCER FORUM PAGE

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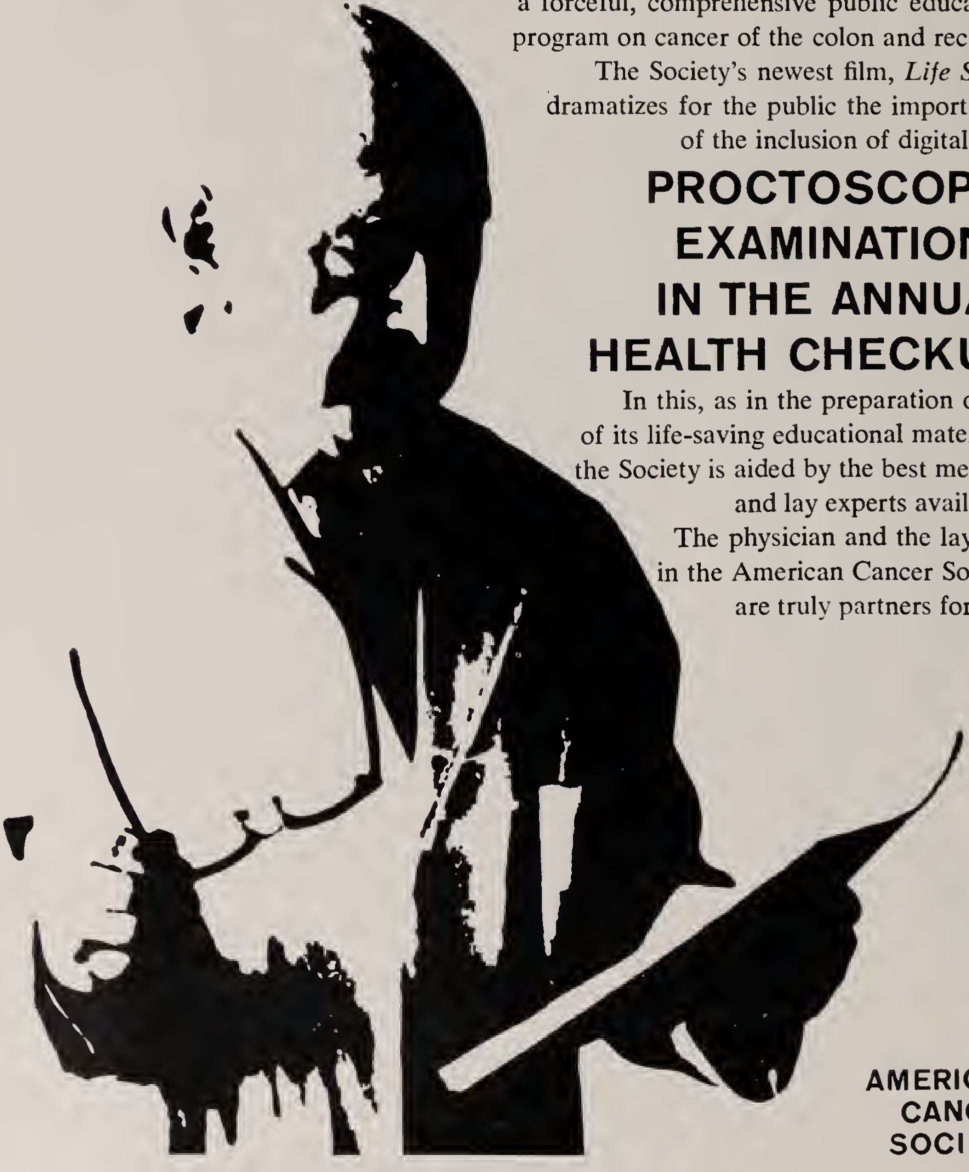
In this, as in the preparation of all of its life-saving educational materials, the Society is aided by the best medical and lay experts available. The physician and the layman in the American Cancer Society are truly partners for life.



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PENNSYLVANIA CANCER FORUM PAGE—presented cooperatively by the Council on Scientific Advancement of the Pennsylvania Medical Society, the Philadelphia and Pennsylvania Divisions of the American Cancer Society, and the Cancer Control Section, Pennsylvania Department of Health.

Respiratory Insufficiency in Surgery

Successful management of severe respiratory problems in surgical practice through improved surgical and anesthetic techniques.

THOMAS F. NEALON, JR., M.D., ATHOLE G. McNEIL, M.D., AND JOSEPH J. PROROK, M.D.

Philadelphia, Pennsylvania

Many patients with severe cardiorespiratory problems who once would have been considered very poor risks can now be successfully operated upon owing to the improvements in surgical techniques and anesthetic management. In addition, the increased prevalence of pulmonary emphysema has presented the surgeon with many more respiratory problems among surgical patients than before. Many of these patients, who previously would have been considered unsuitable for operation, can now be safely carried through surgical procedures with proper management. It is our purpose to outline the management of such problems and to illustrate our points with pertinent case reports.

General Considerations

Most operations will produce some diminution in pulmonary function for variable postoperative periods even in non-thoracic procedures. This is only transient and can be expected to clear totally. Lower abdominal procedures will have the least effect. Upper abdominal procedures can cause severe impairment of chest movement: almost as severe as thoracic procedures which have the highest incidence of pulmonary complications, as direct involvement of lung tissue is added to the incisional pain. These complications are more severe and require longer to resolve. If any functioning lung is resected or if the chest wall or diaphragm are altered some loss of function will be permanent. Complications which interfere with expansion of the lung or motion of the chest wall and/or diaphragm will also cause permanent loss of function.

Preoperative Evaluation

A carefully taken history is most important. Special attention should be given to the patient's exercise tolerance, smoking habits, occupational history (particularly if the occupation involves exposure to dusts), or a history of chronic pulmonary disease. Any of these should warn of the probability of complications during and after surgery.

A complete physical examination must be done, as with any preoperative patient. Particular attention should be given to the examination of the chest. The chest contour, adequacy of motion of the chest, dependence on accessory muscles of respiration at rest, changes in percussion sounds, the quality of breath sounds and any abnormal sounds such as rales or wheezes should be noted. Evidence of cyanosis or dyspnea at rest, while talking, and after mild exercise can be very informative.

Routine laboratory studies should include: complete blood count, urinalysis, electrocardiogram and chest x-ray. Other studies indicated by the history or physical examination should be added.

The need for a preoperative blood volume determination is frequently not appreciated. Certainly it should be measured on all patients with a history of chronic illness, weight loss, or blood loss. Some believe it should be a routine preoperative study prior to all major operations.

Any sputum produced should be cultured for bacteria and the antibiotic sensitivity determined. The extent of pulmonary suppuration can be evaluated by having the patient collect all his sputum in a cup left at the bedside.

Simple pulmonary function studies should be carried out. Timed vital capacity and maximal breathing capacity (MBC) should be measured before and after a bronchodilator is administered by intermittent positive pressure breathing. The capacities after treatment will give some index of the improvement which might be achieved with proper preparation. Arterial blood gases and pH should be measured before and after exercise. The ability of the patient to blow out a match is another indication of his ability to move air.

Such studies are sufficient for all general surgical procedures as well as for most thoracic procedures. In borderline cases, especially those involving pulmonary resection, bronchospirometry may be invaluable in evaluating the function of the individual lungs, in establishing how much true functioning lung tissue has to be sacrificed and determining whether this can be tolerated.

Preoperative Preparation

Anemia should be corrected in hypovolemic patients by whole blood, in the normovolemic, either by iron if surgery can be delayed or, if surgery is urgent, by packed cells to avoid overloading the circulation.

A history of heavy smoking (at least two packs of cigarettes a day) is of significance even in the patient who apparently has no pulmonary impairment. Smoking must be stopped; substantial measurable improvement in function results. Not only does this facilitate anesthesia but it reduces postoperative complications.

Patients with pulmonary suppuration should have postural drainage several times daily. It is best to demonstrate the technique personally to the patient. The sputum should be cultured and specific antibiotic therapy begun once the laboratory has identified the organisms and their sensitivity. The quantity and consistency of the sputum for each twenty-four hour period should be noted. Satisfactory treatment results in an initial increase in volume followed by a diminution.

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All these patients should receive inhalation therapy. This consists of intermittent positive pressure breathing (IPPB) which can be administered as often as is deemed necessary—a twenty minute treatment four times daily is usually satisfactory. The importance of using a gas mixture which has been warmed and humidified cannot be stressed too much. To this basic regimen can be added bronchodilators such as Isuprel (Isoproterenol) or Vaponephrin (racemic epinephrine) in cases of wheezing. This should be given for a minimum of a week. In severe cases repeat studies are the best means of determining when maximum improvement has occured. Although some physicians use mucolytic agents to remove secretions, we have rarely found this necessary. Adequate hydration of the patient seems to work almost as well and when additional therapy is required we believe specific antibiotic therapy is far more helpful.

Operation

Due to modern anesthetic techniques, management of the patient during surgery is often simpler than at any other time. Ease of inhalation enables the anesthesiologist not only to ventilate adequately the lungs but also to perform extremely efficient tracheobronchial toilet. The increasing use of muscle relaxants enables him to hyperventilate without using large doses of potent depressant drugs. Mechanical ventilators insure rhythmic continuous ventilation.

We have found that color alone is not a good indication of satisfactory oxygenation and we therefore do blood gas studies at intervals during the procedure and analyze the inspired oxygen percentage to keep the pO_2 of the arterial blood at a normal level.

The preparation outlined allows the operation to proceed smoothly. If your patient develops bronchospasm and possibly cyanosis and hypotension which does not respond immediately to therapy, preparation has probably been inadequate. If this happens it is best to cancel the operation. Usually, further, more intensive preparation will permit a later anesthesia without difficulty.

Postoperative Management

Postoperatively all these patients require additional oxygen and some support of their ventilation. Consequently most patients and particularly those with inherent pulmonary disease should have an oxygen enriched mixture postoperatively.

A word of caution: often when O_2 is required, the patient is actually hypoventilating and also building up CO_2; hence ventilatory support is required rather than increased O_2. If O_2 is used alone the patient must be watched carefully for signs of developing CO_2 narcosis—rise in pulse and blood pressure and drowsiness (case 2).

Prophylactic postoperative therapy is directed primarily at the prevention of hypoventilation and atelectasis. Frequent deep breathing, periodic coughing and early ambulation are necessary. Sufficient analgesics to relieve pain will help the patient to accomplish these exercises. A patient is far more likely to cough satisfactorily if his pain is controlled. Concern that narcotics will depress the cough reflex and promote the accumulation of secretions is often overdone. This occurs only if sufficient narcotics are given to render the patient stuporous. A conventional dose can be very dangerous in a seriously ill patient, however. Intermittent positive pressure breathing is always used in these patients to prevent hypoventilation, accumulation of secretion and atelectasis.

In spite of encouragement to cough, and good inhalation therapy, secretions may continue to accumulate. In these cases a tracheobronchial toilet should be carried out. A sterile suction catheter is passed through the nose into the trachea and the resulting stimulation of the carina will produce coughing which will help expel material from the smaller bronchi. If the secretions are tenaceous, 2-3 ml. of PSS through the tube helps to loosen the secretion. The danger of this form of toilet is that the catheter will aspirate the O_2 as well, creating the dangers of cardiac arrest. A more ideal method would be to pass a nasal endotracheal tube each time. Repeated suction can be carried out, alternating with short periods of ventilation using such equipment as an Ambu Bag. In this way maximum aspiration can be achieved with minimum risk. If the nose is desensitised with a local anesthetic agent such as 4 percent xylocaine this is also less painful than repeated passage of a suction catheter.

If the patient's respiratory problems persist with the regimen, bronchoscopy is indicated and can be performed at the bedside with minimal difficulty. It is well to culture the aspirations and obtain sensitivities on any bacteria obtained. A tracheostomy should be performed if repeated bronchoscopy fails to remove excessive secretions. Tracheostomy should be elected before the patient becomes preterminal from the hypoxia and hypercapnia. Tracheostomy decreases the physiologic dead space, but more importantly simplifies aspiration of the tracheobronchial tree. Continual good hydration of the patient at all times in the postoperative period will help to loosen the bronchial secretions.

Some surgeons insert a fine polyethylene catheter percutaneously via a needle through the cricoid cartilage into the trachea. Coughing is stimulated and secretions cleared by the direct instillation of small amounts of saline, bronchodilators, antibiotics and/or enzymes into the trachea. We have not found it necessary to use this technique.

Mechanical Ventilation

The patient may be unable to move sufficient air to ventilate himself properly, or the effort required to do this may be exhausting to him. If he continues under these circumstances he will go into a generalized collapse and succumb. This can be prevented by providing the patient with adequate ventilation until he can breathe well for himself. In addition, the patient who is being ventilated can be given pain relief by analgesics without fear of further respiratory depression. Analgesics may, in fact, be unnecessary as the hyperventilation with its resultant lowering of pCO_2 will produce an increase in the pain threshold and the need for narcotics may be greatly reduced or even eliminated.

In the immediate postoperative period a cuffed nasotracheal tube should be inserted. This can be used for at least the first twenty-four hours. The patient can then be re-evaluated and if there is need to continue the ventilatory support, we do tracheostomy and insert a cuffed tracheostomy tube. It is extremely important that the tube be of adequate size to reduce resistance to a minimum. Disposable cuffed polyethylene tracheostomy tubes are handy and less traumatic than the silver.

Some ventilators assist the respiration and are triggered as the patient begins to inspire. Assisted ventilation simply augments the normal inspiration with an increased volume of gas with either a predetermined volume or pressure setting. This usually is adequate for most patients. Other ventilators do not follow the patient's respirations but set a pattern of their own, irrespective of the efforts of the patient. These are said to control the ventilation. Before controlled ventilation can be initiated, spontaneous respiration must be suppressed, either by hyperventilation to remove the normal stimulus for breathing, or by the use of narcotics or a muscle relaxant such as D-tubo-Curarine chloride. If this is done the patient will not "fight" the ventilator and will synchronize with the machine.

When ventilatory support has been established, the volume and the concentrations of the ventilating gas must be adjusted to maintain the tensions of the oxygen and carbon dioxide in the circulating blood within normal limits. Once these have been adjusted, the blood gases can be kept relatively constant by maintaining the ventilation. This can be done by periodically checking the volume with spirometers which are available for most ventilators. Minor adjustments can be made following blood gas analyses every day or two.

Continuous ventilatory support is terminated when the patient's ventilatory status has improved sufficiently. An oxygen collar is used with intermittent positive pressure breathing (IPPB) every two to four hours for fifteen minutes. Depending upon the blood gas values the oxygen flow is diminished and the frequency of the IPPB is decreased until it is being given in periods of no more than 20 minutes, four times daily. The tracheostomy tube is occluded and, if the patient tolerates this for several days, the tube is removed and the tracheostomy allowed to close. Patients are initially fed intravenously but after a day or two of continuous ventilatory support they can sit up and eat a regular diet.

Case reports illustrating several types of problems:

CASE 1: A fifty-nine year old male was admitted on October 10, 1965 to Jefferson Medical College Hospital for treatment of a large mass of the left lung. He had had a chronic cough for forty years. For the past six to eight years he had been feeling poorly and had lost twenty-five pounds. He recently developed hemoptysis and was bringing up two ounces of purulent sputum daily. He had a limited exercise tolerance and an emphysematous contour to his chest. Chest x-ray revealed a large mass with an air space and a fluid level in the left mid lung field. Bronchoscopy demonstrated a mass protruding from the bronchus to the superior segment of the left lower lobe. A biopsy of this was reported as squamous cell carcinoma.

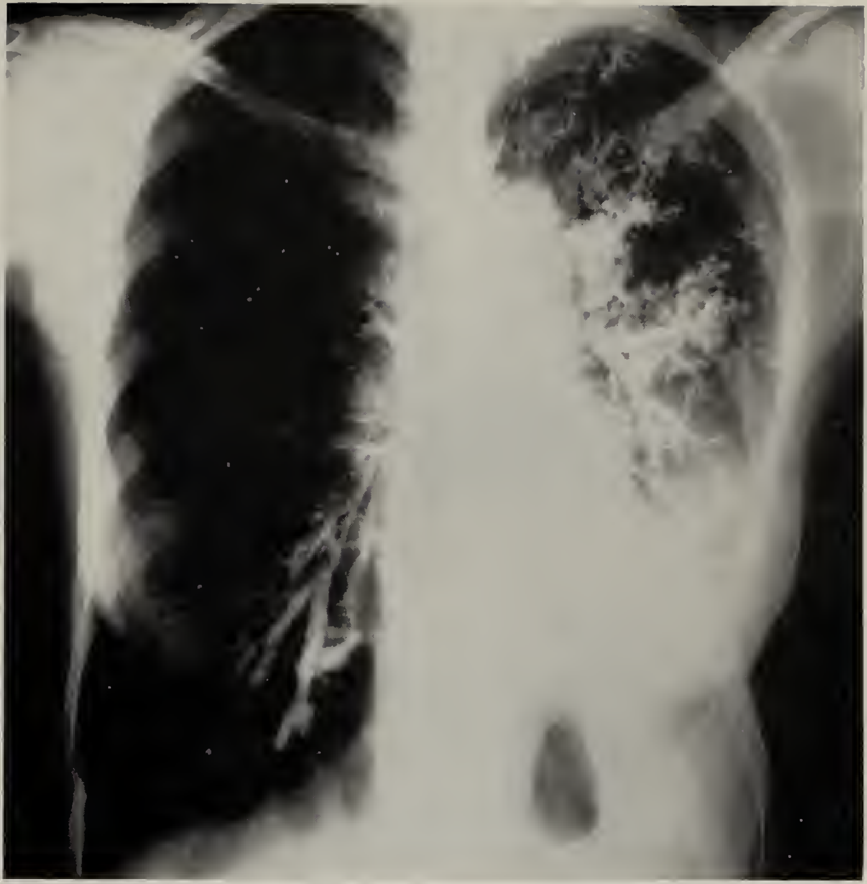

Fig. 1. Bronchogram showing wide spread bronchiectatic changes in remaining left upper lobe (Case 2).

Pulmonary function studies showed an MBC of 45 percent of predicted which improved to 65 percent of predicted following the use of IPPB with Isuprel. He was started on a vigorous program of postural drainage, pressure therapy and antibiotics. There was some subjective improvement, but approximately twice weekly he had bouts of cough and temperature elevation. After a month of therapy the MBC was only 50 percent of predicted. It was felt that the improvement accomplished by the treatment had been offset by an increase in the size of the tumor and repeated episodes of pneumonitis caused by spill of the secretions. It was believed that maximal improvement had been accomplished. Operation was considered feasible but it was expected that he would need continuous ventilatory support in the early postoperative period.

On November 15, 1965 a left pneumonectomy was performed. Just as his bronchus was closed, his condition deteriorated and his blood pressure fell. An arterial blood sample showed a pO_2 of 68, a pCO_2 of 80, and a pH of 7.13. The ventilation was markedly increased and he was given a small amount of Ephedrine. His blood pressure responded and his color improved. At this point his pO_2 had risen to 150 and his pCO_2 had dropped to 45 and the blood had raised the pH to 7.34. A tracheostomy was performed before he left the operating room, he was transferred to the Clinical Research Unit and attached to an Engstrom volume controlled ventilator where nine liters of gas containing 45 percent oxygen maintained an arterial pCO_2 of 43, a pO_2 of 125 and a pH of 7.38. For the next two days the oxygen had to be increased to 50 percent. On the fifth postoperative day the continuous ventilatory support was discontinued and he was put on an oxygen collar with periods in IPPB treatments. The tracheostomy was removed on December 1, 1965 and he was discharged on December 13, 1965. Breathing room air his pO_2 was 70 or 95 percent saturated, his pCO_2 was 35, and his pH 7.46.

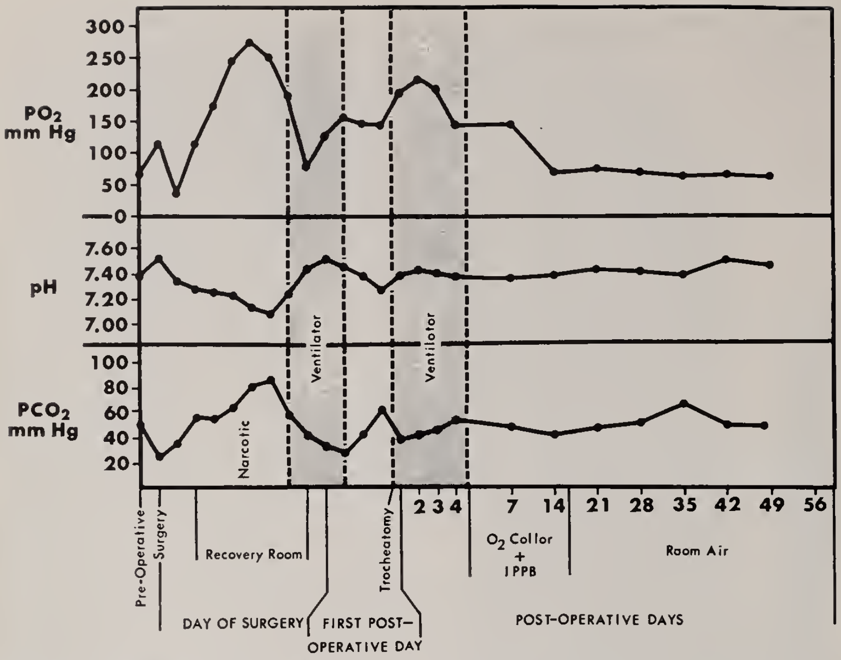

Fig. 2. Changes in blood gas and pH measure (Case 2). Note: rise in pCO_2 postoperatively which responded to ventilatory support. When the support was stopped on the first postoperative day, hypercarbia recurred but again responded to treatment.

He was getting along well on September 1, 1966.

Comment: This case presents a very high risk patient who would not have survived without the continuous ventilatory support which carried him through the dangerous postoperative period when his function was temporarily depressed. Blood was suggested when his condition deteriorated during operation. This was withheld when the blood studies demonstrated poor ventilation. The patient's condition improved when the ventilation was increased.

CASE 2: A forty-one year old white female was admitted to Jefferson Medical College Hospital on May 8, 1966 with a history of pulmonary complaints extending over a twelve year period. She had severe bilateral basilar bronchiectasis and had two pulmonary resections of her left lower lobe and part of her lingula ten and twelve years ago. She developed an empyema in January, 1966 for which open drainage had been inserted. She had a persistently draining cavity and a bronchopleural fistula since that time. She entered the hospital in May for removal of the remaining left upper lobe, much of which appeared to be destroyed (Fig. 1).

She was prepared with postural drainage, IPPB and antibiotics.

On May 20, 1966 the remaining pulmonary tissue was excised from the left hemithorax. The patient tolerated this well. In the recovery room she had persistent hypoventilation made worse by one normal dose of analgesic. The patient was initially treated with nasal oxygen with arterial blood studies of pH 7.27, pCO_2 of 55, and pO_2 of 175. On this regimen she became more stuporous and it was necessary to ventilate her through a cuffed endotracheal tube and a pressue regulated ventilator four hours after operation. With this apparatus the patient's condition stabilized (pH 7.51, pCO_2= 33, pO_2=126 and O_2 saturation of 98.7) (Fig. 2).

The next morning the patient was detached from the ventilator. The endotracheal tube was removed after repeated arterial blood gas studies done over a period of four hours were within normal limits. However, that evening the patient again began to accumulate carbon dioxide. Arterial blood studies demonstrated a pH of 7.27, a pCO_2 of 61, and a pO_2 of 147 (with oxygen) (Fig. 2). This made it evident that prolonged ventilatory support was necessary. Tracheostomy was performed and patient was again attached to the ventilatory with very good results. Ventilatory support was

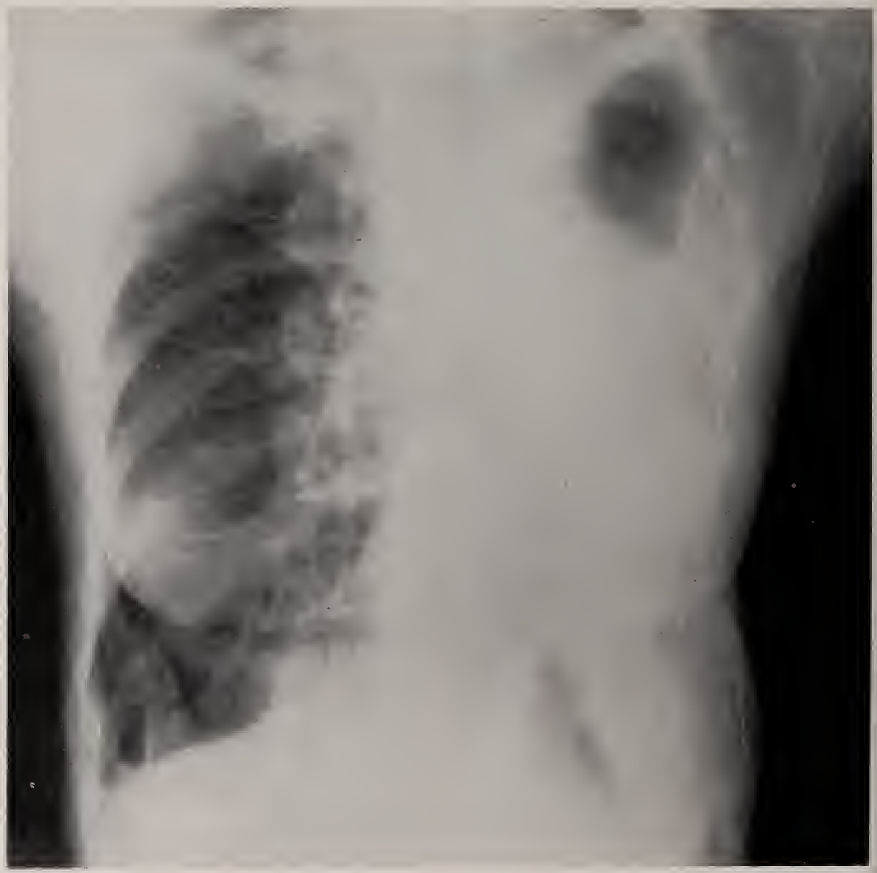

Fig. 3. Chest x-ray (Case 2) at the time of discharge.

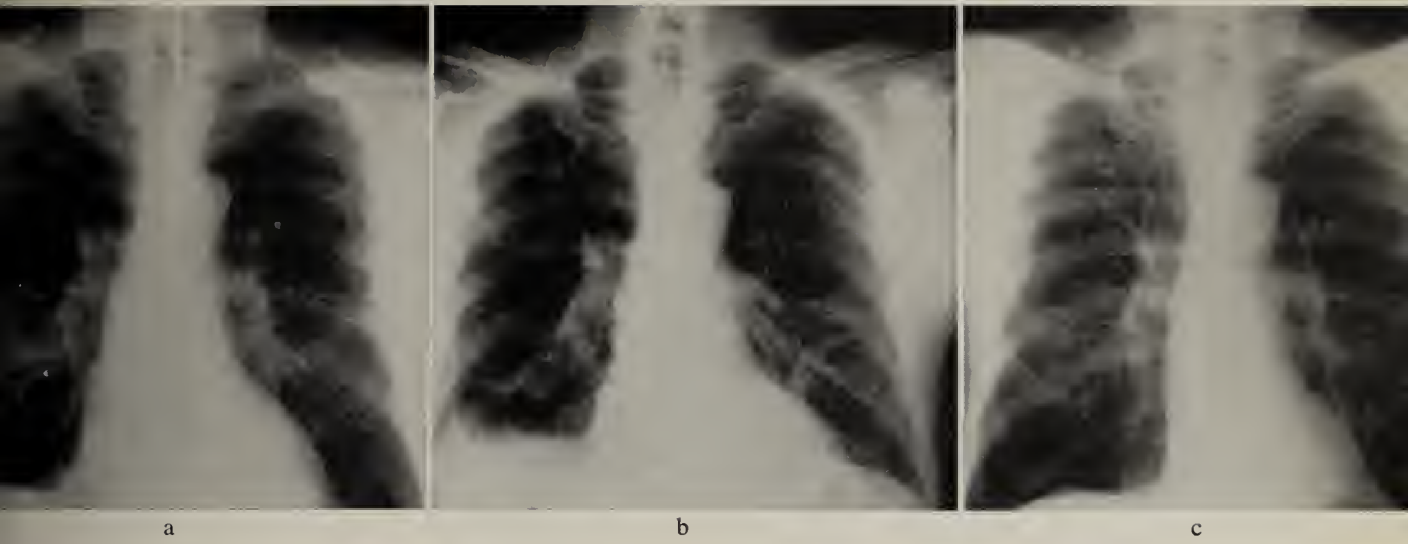
a b c

Fig. 4. Chest x-rays (Case 3) a. eighteen months prior to admission; b. on admission; c. at discharge. The fluid present on admission (b) had cleared by the time of discharge (c).

continued for four days. For the next week she used an oxygen collar over her tracheostomy and IPPB. Failure to use the latter on several occasions allowed the CO_2 to accumulate. She did well on room air with IPPB and the tracheostomy was removed on August 10, 1966. She was discharged with the recommendation that she use IPPB at home four times daily (Fig. 3). On the day she left the hospital arterial blood studies showed a pH of 7.36, a pCO_2 of 56.5, a pO_2 of 63 and oxygen saturation of 91.5.

Comment: This case demonstrates a patient in whom the need for ventilatory support was not anticipated. She needed immediate support postoperatively because she was too depressed to move adequate air. A cuffed nasotracheal tube was used in an effort to avoid a tracheostomy. This was removed the next day because we do not like to keep such tubes in for longer periods of time. It appeared that she would be able to get along with IPPB administered orally. However, when breathing became labored and successive, and blood samples demonstrated a progressive rise in pCO_2, the tracheostomy was performed and continuous support resumed (Fig. 2).

CASE 3: A sixty-three year old white male was admitted to Jefferson Medical College Hospital on July 15, 1966 from another hospital. He had been hospitalized for the previous two weeks with shortness of breath and abdominal complaints. He had changes in his right lung which were diagnosed as pneumonia. He was given penicillin, put on continuous

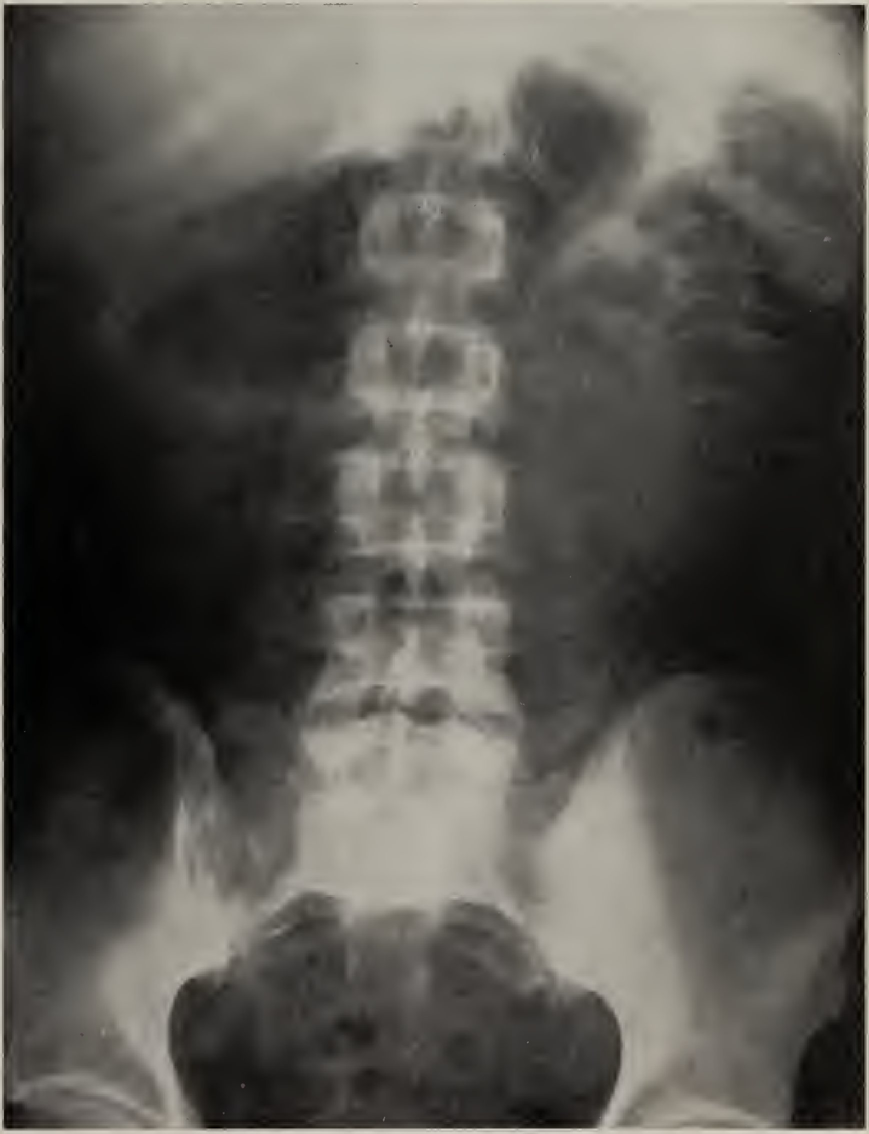
Fig. 5. Abdominal film (Case 3) showing distended loops of small bowel.

oxygen and on IPPB. He was admitted with lower abdominal pain and he developed abdominal distention. This responded to intestinal intubation but recurred each time the tube was removed and each time an effort was made to feed him. During his hospital stay he developed progressive confusion and lethargy. He was transferred to Jefferson because of a new development of right upper quadrant pain and tenderness.

He had been a Jefferson patient in January, 1965 when an embolus was removed from his left common iliac artery. Advanced emphysema had been present at that time and he was started on IPPB, which was continued at home.

On arrival he was markedly lethargic. There was diminution of breath sounds throughout his chest, and generalized wheezing. There was flatness to percussion over his lower right lung field. His abdomen was slightly distended, with tenderness and guarding in the right upper quadrant.

Chest x-ray showed the advanced emphysema seen earlier, and a pleural effusion at the right base (Figs. 4, a and b). X-ray of the abdomen showed enlarged loops of small bowel (Fig. 5).

He was prepared with IPPB twenty minutes every two hours around the clock with a marked clearing of his sensorium. On the fourth hospital day, an operation revealed an empyema of the gall bladder and a partial small bowel obstruction due to involvement in an appendiceal abscess. A cholecystectomy and appendectomy were performed. He tolerated the operation without difficulty and responded well while in the operating room.

In the recovery room his pCO_2 began to rise and a cuffed nasotracheal tube was inserted and attached to a respirator. This readily corrected the blood gas values. It was removed the following day. He was put on IPPB twenty minutes every two hours around the clock. The pCO_2 ranged between 46 and 56. The frequency of treatment was gradually decreased with no deleterious effect on his breathing or his blood gases. At the time he left the hospital on the seventeenth postoperative day he was able to resume normal activity without dyspnea using IPPB four times daily. An x-ray of his chest showed that most of the fluid had resorbed (Fig. 4 c).

Comment: It was possible to avoid tracheostomy on this patient because the use of IPPB was effective. This was probably because the patient was an intelligent individual who had long experience with the apparatus. He was able to satisfy his ventilation needs until his function improved. He needed ventilation more than he needed oxygen.

This case presents a patient with severe pulmonary disease further complicated by pleural effusion. He was carried through surgical treatment of several serious intraabdominal problems. I do not think this could have been accomplished without intensive respiratory care.

Summary

At Jefferson Medical College Hospital, management of surgical patients with respiratory insufficiency begins with therapy in the preoperative period, with cessation of smoking, treatment by IPPB, bronchodilators, dependant drainage and specific antimicrobial therapy. Management during anesthesia is simplified for the anesthesiologist provided the patient has been properly prepared. In the postoperative period hypoventilation with accumulation of secretions and atelectasis must be prevented. Frequently oxygenation and ventilation must be augmented.

Such patients are best cared for in a special unit but could be treated in any general hospital by physicians with special skills and an available blood gas laboratory.

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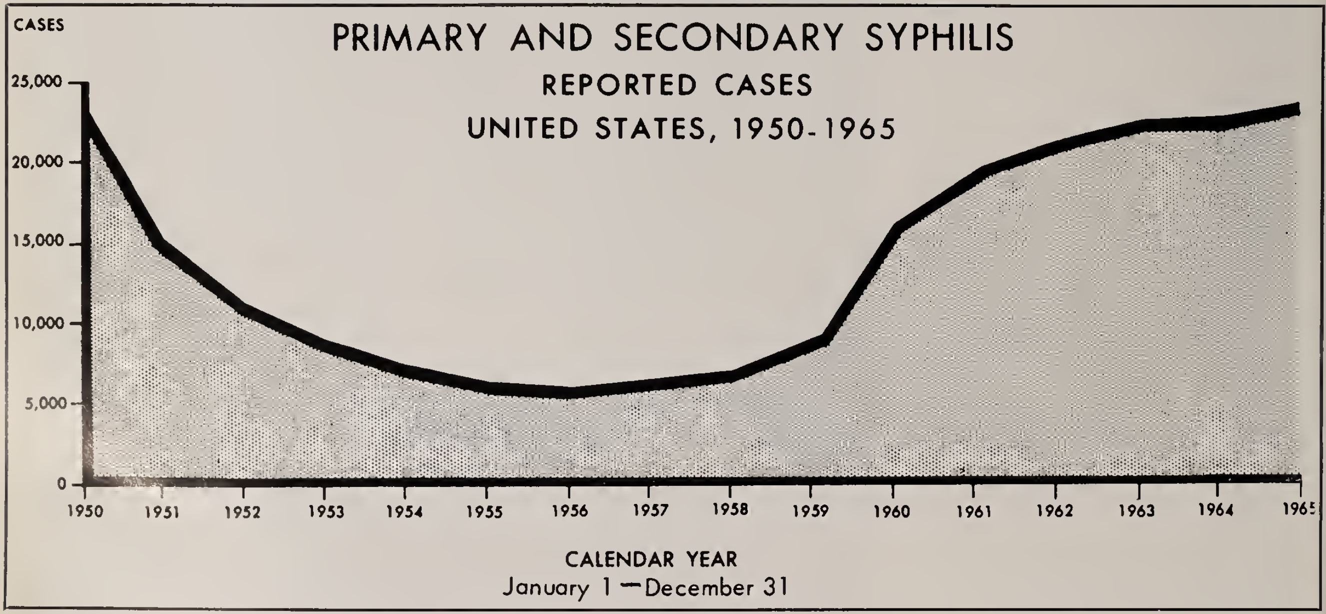

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Surgical Management of The Solitary Kidney

Four case reports demonstrate problems in management accenting a need for special evaluation and consideration of the solitary kidney patient.

THEODORE R. FETTER, M.D.

Philadelphia, Pennsylvania

The patient with a solitary kidney warrants special consideration by the physician. Lesions of the urinary system which may be of relatively minor significance to otherwise normal individuals can be life-threatening to the patient with only one kidney. The usual diagnostic and therapeutic procedures may be fraught with danger and there is little leeway for mistakes or accidents in these patients.

Included in this report are four case histories. One of these has bearing on the mechanism of renal agenesis. The others are illustrative of certain problems in management of the solitary renal state.

Report of Cases

Case 1: A fourteen-year-old Negro male was admitted for evaluation of enuresis of one year's duration. The patient was otherwise asymptomatic. There was no history of tuberculosis or prior surgery. Physical examination revealed no abnormalities; complete blood count and urinalysis were normal. Repeated urine smears and cultures for acid-fast bacilli and other organisms were negative. Blood urea nitrogen and serum creatinine levels and the chest x-ray were normal. The intravenous pyelogram showed an enlarged left kidney which was otherwise unremarkable. The right kidney was not visible. A mass containing a rim of calcification was noted in the right upper quadrant (Fig. 1). Cystourethroscopy revealed absence of the trigone on the right. The right ureteral orifice could not be seen. The remainder of the endoscopic examination was normal.

Retroperitoneal exploration revealed a multicystic, calcified kidney with no ureter. Histologic examination and cultures revealed no evidence of tuberculosis.

Case 2: A fifty-two-year-old white female was admitted because of right flank pain and fever for two days. A left nephrectomy had been performed ten years earlier because of calculous pyonephrosis. The patient suffered from gout, but failed to follow the medical regimen prescribed.

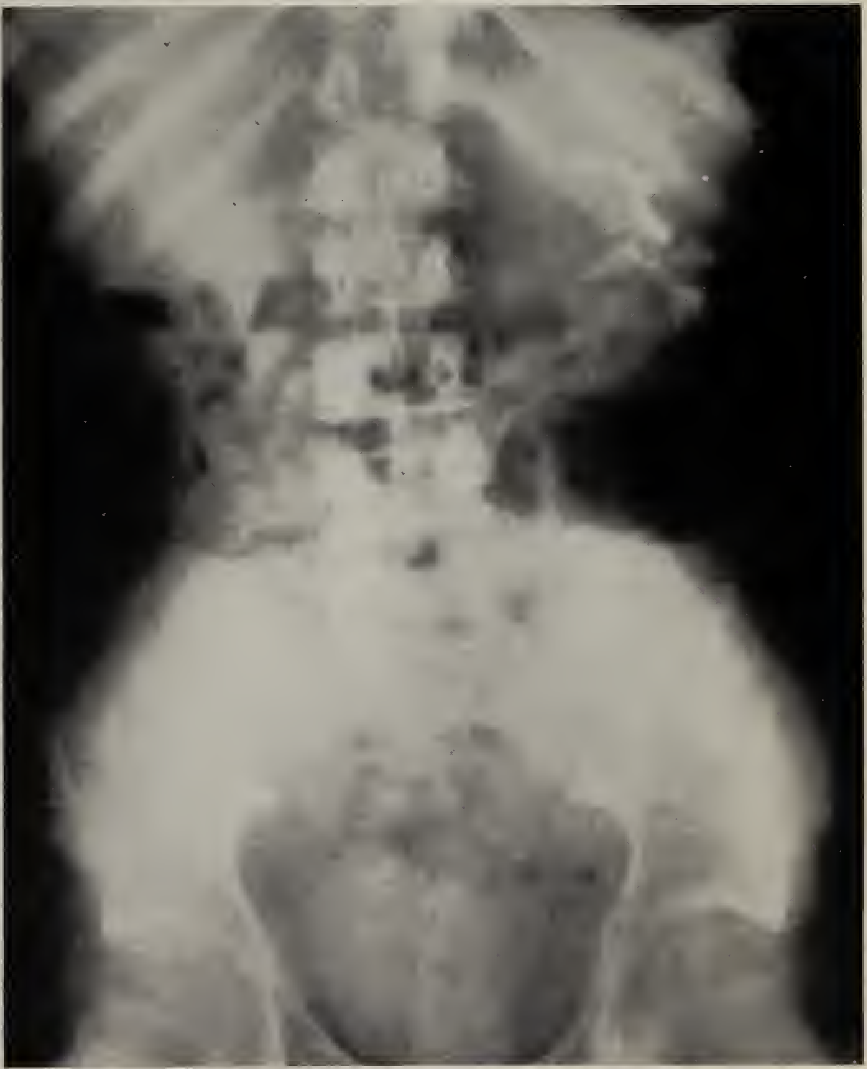

Fig. 1. Intravenous pyelogram of case 1 shows apparent absence of right kidney. Mass with calcified rim seen in right upper quadrant.

■ *Dr. Fetter is professor of urology at Jefferson Medical College Hospital, Philadelphia.*

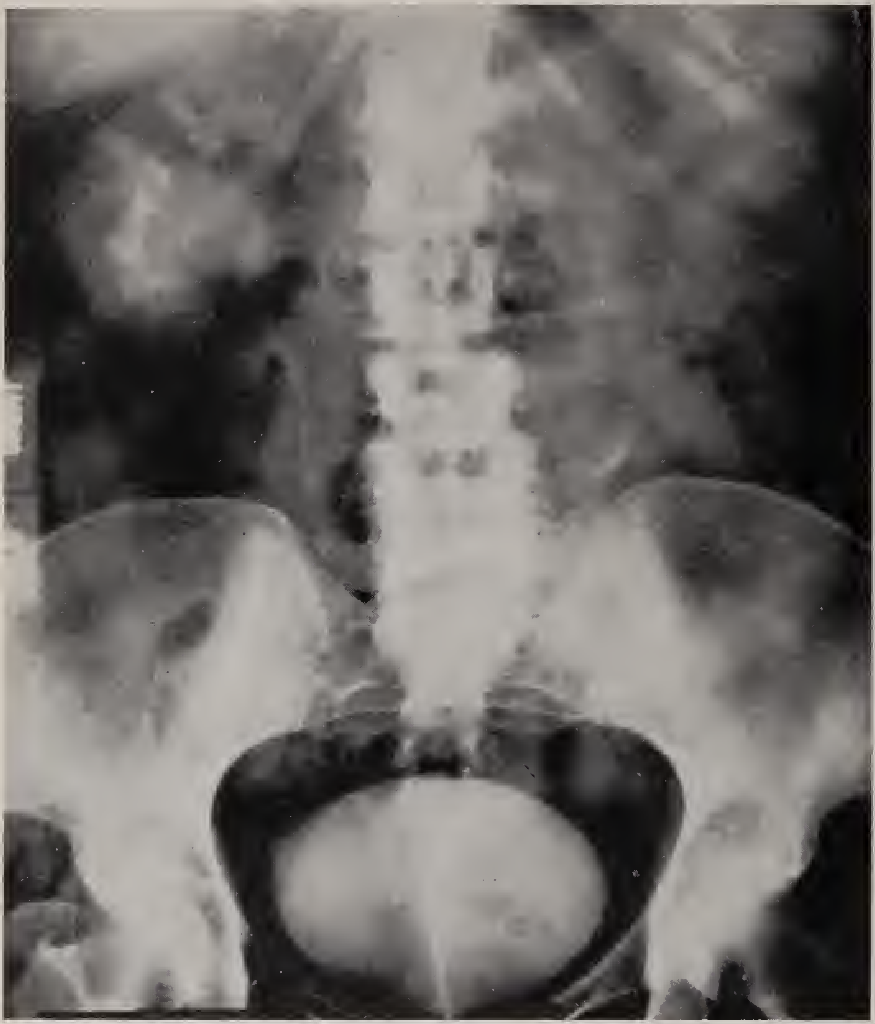

Fig. 2. Intravenous pyelogram of case 2 shows large uric acid calculus in pelvis of solitary right kidney.

On physical examination the vital signs were normal. Moderate tenderness was noted in the right flank. The white blood cell count was 5000/cu mm, with 53 percent lymphocytes. Urinalysis revealed 20-30 WBC and 10-15 RBC/high power field, and many uric acid crystals. Gram-negative rods were seen on stained urinary sediment and urine culture yielded *Escherichia coli.* Blood urea nitrogen level was 44 mg/100 ml; serum creatinine level was 2.1 mg/100 ml; and phenolsulfonphthalein excretion was 20 percent in thirty minutes. Serum uric acid level was 8.2 mg/100 ml. Serum electrolytes, calcium and phosphorus were normal. An intravenous pyelogram obtained on the day of admission showed right hydronephrosis with a large, faintly opacified calculus filling the renal pelvis (Fig. 2). Antibiotic therapy was administered for four days, during which time the daily urinary output measured 1400-1900 ml and the patient remained afebrile. Pyelolithotomy was performed on the fifth hospital day. The calculus was composed of uric acid. The postoperative course was uneventful except for a transient rise in the blood urea nitrogen level. Dietary and medical measures were reinstituted for control of hyperuricemia, and the patient was discharged three weeks after surgery. Two months later the blood urea nitrogen level was 30 mg/100 ml; serum creatinine level was 1.9 mg/100 ml; phenolsulfonphthalein excretion was 25 percent in thirty minutes; and serum uric acid level was 6.5 mg/100 ml. The urine was uninfected.

Case 3: The patient, a sixty-one-year-old white male, was seen because of diurnal urinary frequency and nocturia for four years. There was a history of gonorrheal urethritis twenty years earlier. Physical examination revealed no abnormalities. Complete blood count was normal. Urine contained 15-20 WBC and a moderate number of *Escherichia coli.* Blood urea nitrogen level was 20 mg/100 ml and serum creatinine level was 1.9 mg/100 ml. No phenolsulfonphthalein was excreted within thirty minutes. VDRL flocculation and Kolmer complement-fixation tests were negative. The intravenous urogram showed marked left hydroureteronephrosis and absence of the right kidney. Multiple bladder diverticula were noted on delayed films (Fig. 3). Antibiotic therapy was begun. On the fifth hospital day cystoscopy was attempted but an impassable urethral stricture was encountered. Suprapubic cystostomy was performed, at which time the trigone was found to have only a stenotic left ureteral orifice. The ureteral orifice was enlarged and the ureter intubated transvesically. Four days postoperatively phenolsulfonphthalein excretion measured via the ureteral catheter was 45 percent in thirty minutes. The ureteral splint was removed after four weeks and the patient was temporarily discharged on cystostomy drainage. The urethra was gradually dilated.

The patient was readmitted three months later. Cystoscopy revealed posterior urethral stricture and vesical neck contracture. Internal urethrotomy and transurethral resection of the vesical neck were performed. The cystostomy tube was removed two weeks later. The patient has remained well in the three years of follow-up since his surgery. A recent intravenous pyelogram shows considerable regression of pyeloureterectasis (Fig. 3).

Case 4: A sixty-six-year-old Negro female underwent right nephrectomy for pyonephrosis thirty-one years ago. Fourteen years ago a left intubated ureteroplasty was performed for a long stricture of the lower ureter. Nephrostomy drainage was instituted temporarily. During the past twelve years the patient periodically experienced moderate discomfort in the left flank. Drainage of the kidney was carried out endoscopically at intervals during this time with temporary relief of symptoms. The blood urea nitrogen levels ranged between 25-30 mg/100 ml. Recently the patient became intolerant of the procedure and experienced febrile episodes following ureteral catheterization. Immediately after the last instrumentation she

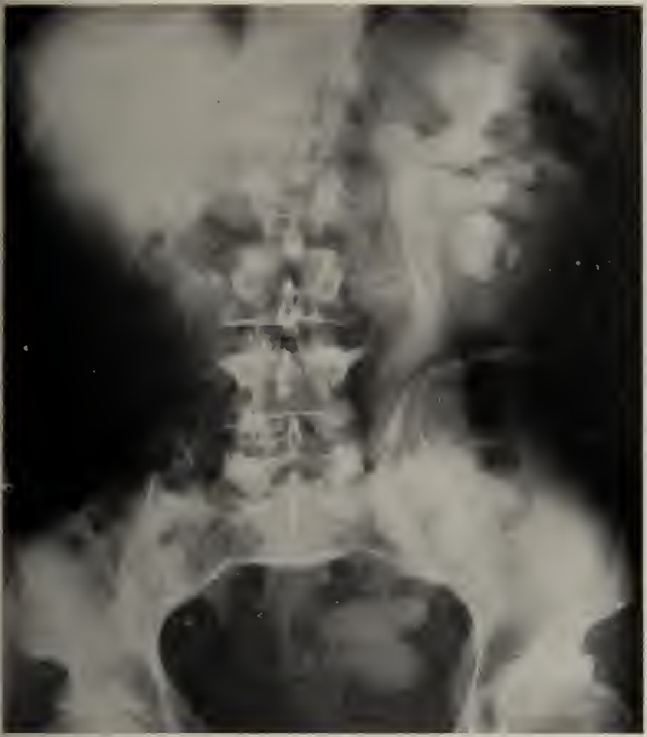
Fig. 3A. Intravenous pyelogram shows hydroureteronephrosis of solitary left kidney (case 3).

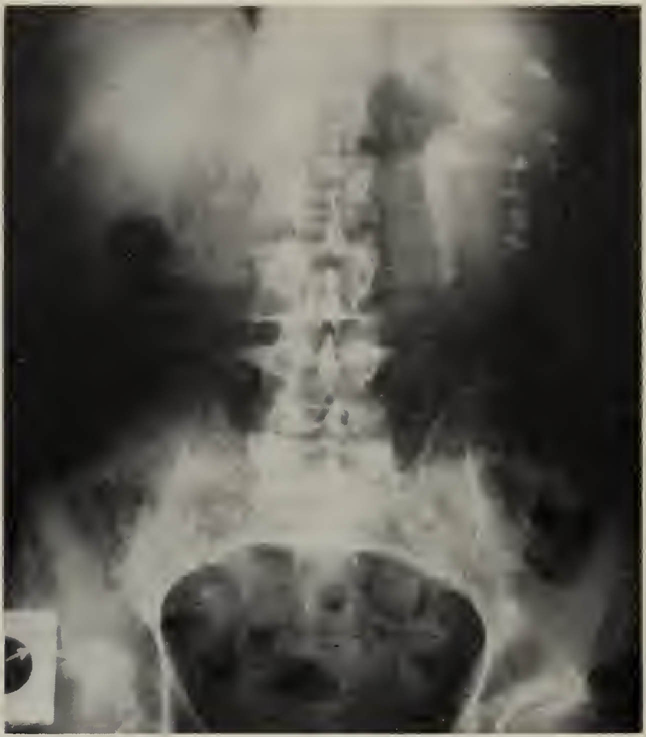
Fig. 3C. Intravenous pyelogram two years postoperatively shows regression of upper tract dilatation.

developed an acute hydronephrosis which required prompt drainage of 350 ml urine. The ureteral catheter was left indwelling.

Marked obesity was noted on physical examination at this time. The temperature was 99.6 F. The remainder of the vital signs were normal. Moderate tenderness was noted in the left flank. Complete blood count was normal. Urinalysis revealed clumps of RBC and WBC but no bacteria on stained urinary sediment or culture. Blood urea nitrogen level was 31 mg/100 ml and serum creatinine level was 3.0 mg/100 ml. A retrograde pyelogram five days later showed marked dilatation of the left renal collecting system and upper ureter proximal to a long stricture (Fig. 4).

The patient was strongly opposed to an external urinary diversion. It was elected to splint the ureter from the ureterovesical junction to the pelvis with an indwelling No. 10 French multifenestrated tube of medical grade silicone (Vivosil). The tube was passed endoscopically and divided so that its distal end projected a few millimeters beyond the ureteral orifice into the bladder. The patient tolerated the splint tube well and was discharged ten days later. She has done well during a six month period of follow-up. She voids in amounts of 200-300

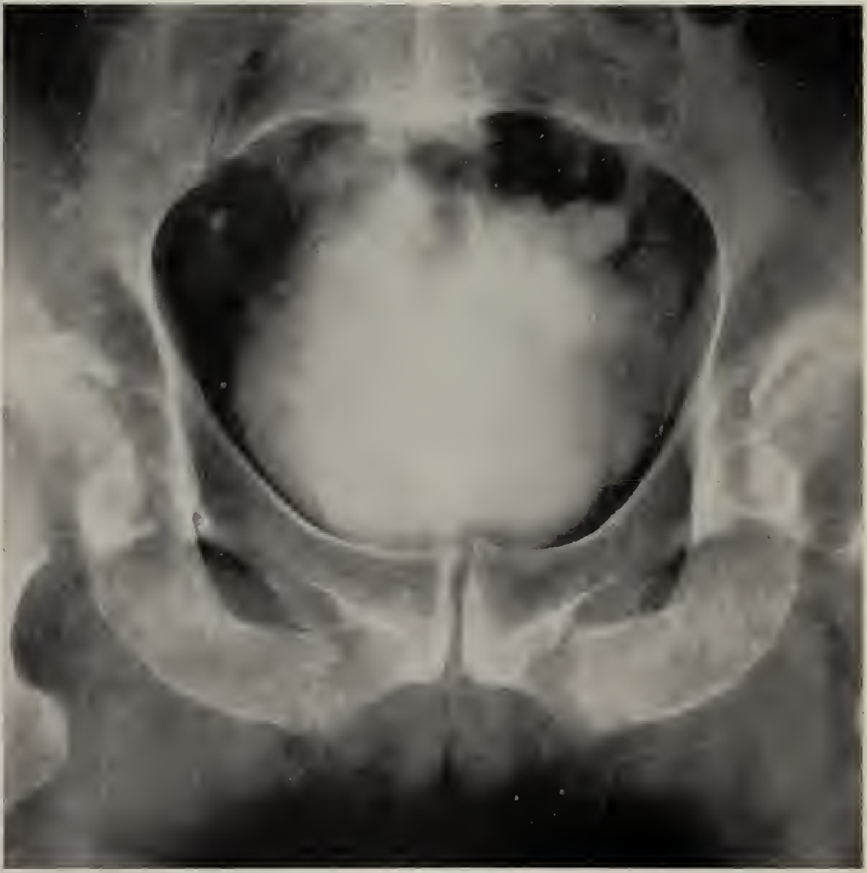
Fig. 3B. Delayed film shows multiple bladder diverticula. Ureteral meatotomy with intubation and suprapubic cystostomy performed. Internal urethrotomy and transurethral resection of vesical orifice performed 3 months later.

ml without complaints. Her clinical course has been unmarred by fever, flank discomfort or other difficulties other than microscopic hematuria and occasional minimal pyuria and bacteriura.

Comment

The causes of the true solitary renal state are renal agenesis and, more usually, nephrectomy. The developmental basis for renal agenesis is uncertain. For many years renal morphogenesis has been thought to depend on an inducting effect of the ureteral bud upon the nephrogenic ridge.[1, 2] More recently Ashley and Mostofi[3] reported several cases of renal development in the absence of a ureter. They hypothesized that the nephrogenic ridge has within itself the potentiality for renal differentiation. The findings in case 1 appear to support this concept in that even without the presence of a ureter, a renal structure, albeit an abnormal one, was formed.

It is important to establish that a patient has only one kidney. Often this is obtained by history or suggested by seeing the tell-tale flank incision. At times the first indication that there is but one functioning kidney is the intravenous pyelogram. It then becomes necessary to differentiate between true absence of a kidney and an apparent solitary renal state in which both kidneys are present but one is functionless. The causes of a non-functioning kidney are numerous. Congenital abnormalities such as hydronephrosis, renal ectopia or fusion, multicystic disease or hypoplasia can produce an apparent solitary renal state, as can inflammatory processes such as tuberculosis, atrophic pyelonephritis or renal suppuration. Other conditions include trauma, renal artery stenosis, renal vein thrombosis and renal malignancy. Mechanical obstruction of the renal pelvis or ureter is a relatively common cause of unilateral renal dysfunction.

The diagnosis of the solitary renal state should be approached systematically. A meticulous history and physical examination are essential. The abdominal survey film and intravenous pyelogram are carefully inspected for evidence of renal tissue. If a kidney is not found in the usual position one should then look for an ectopic kidney. The establishment of the position of a sacral kidney may save the patient an unnecessary exploration or even nephrectomy for a so-called pelvic mass. Delayed films with second injections or continuous dye infusion studies are sometimes useful in demonstrating a poorly functioning kidney. Endoscopy is carried out to determine the presence of a hemitrigone, suggestive of renal agenesis, and to locate a ureteral orifice on the side of the non-visualizing kidney. Urethroscopy and varginoscopy are used to discover ectopic ureteral orifices. If an orifice is identified, retrograde pyelography is attempted. Depending on the results of these studies, retroperitoneal insufflation, renal scan or aortography may be utilized.

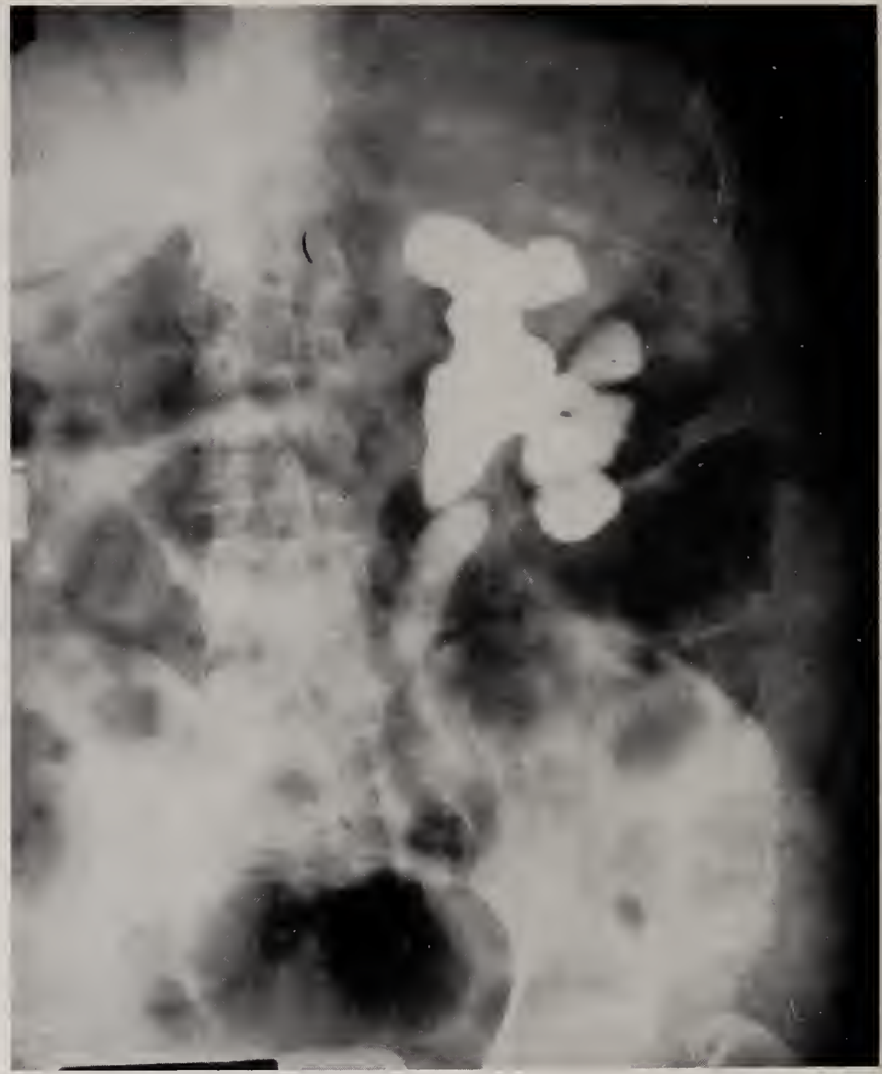
Fig. 4. Retrograde pyelogram of case 4 shows left pyeloureterectasis proximal to stricture of lower ureter. Right kidney removed 31 years earlier.

The surgical management of calculous disease in a solitary kidney is a challenging situation. In this type of patient we have occasionally found intravenous mannitol useful in maintaining renal filtration. Facilities for dialysis should be available in the early postoperative period, as temporary renal shut-down from the trauma of surgery remains a possibility.

Nephrectomy for calculous disease is performed with reluctance, for the underlying metabolic abnormality predisposes to stone formation in the remaining kidney, as illustrated by case 2. Urinary calculous disease in many cases is a malignant disease and as life-threatening as any neoplasm. Preventive measures are therefore important. Whenever a calculus is recovered from a patient its composition is determined. We then insist on strict adherence to the appropriate metabolic regimen. A high fluid intake is of prime importance. The urine is periodically screened for infection. Correctible factors promoting urolithiasis, such as excessive calcium or vitamin D intake or hyperparathyroidism, are repeatedly searched for.

Case 3 illustrates the striking degree of hydroureteronephrosis that can develop in the face of deceptively minimal symptoms. The absence of pain in advanced hydronephrosis is a common observation and may be related to the relatively low intrapelvic pressure that obtains during chronic obstruction of the ureter.[4, 5, 6] The principle that an obstructed kidney requires drainage becomes dictum in the case of a solitary kidney. There is little place for expectant management in this situation as the patient's life may depend on early and vigorous therapy.

The use of an indwelling silicone rubber ureteral splint in case 4 appeared indicated by the special circumstances which obtained. An operative procedure on this patient would have been hazardous, as she was elderly, obese, diabetic and had had previous surgical procedures on her solitary kidney and lower ureter. Also, she had rejected external urinary diversion. Prolonged ureteral splinting with silicone tubing has proven feasible experimentally.[7] We have utilized this technique in selected patients with encouraging results, which will be described in a subsequent report. As expected, some degree of vesicorenal reflux occurs, but the renal pelvis empties promptly and renal deterioration has not been observed to date.

An additional problem worthy of mention is posed by the patient with bleeding from a solitary kidney. The possible causes of this perplexing situation are legion. We have encountered such patients in whom previous nephrectomy had been performed because of severe unilateral renal hemorrhage. Even after nephrectomy the problem of etiology has at times been difficult to solve.[8] In addition to an intensive urological investigation, a thorough hematological evaluation is essential. We have found epsilon amino caproic acid effective in controlling sickle cell and idiopathic hematuria in some instances, as have others.[9, 10] Naturally, the efficacy of therapy ultimately depends on the underlying pathologic process.

The presence of a malignant tumor in the parenchyma, pelvis or ureter of a solitary kidney is obviously a grave situation. Local resection of the tumor may offer the only chance for cure.[11-14]

Summary

The management of the patient with a solitary kidney is directed toward maintaining maximum renal function. If there is obstruction, it should be relieved or bypassed. By constant vigilance and adjustment of diet, urinary pH, and maintenance of high urine output, problems of stone formation can often be minimized. Potential sources of trauma to the remaining kidney, such as contact sports, must be prohibited.

The patient is cautioned to have periodic reevaluation of his urinary tract, including careful urine analysis, and is made aware of any symptomatology indicative of impending urinary difficulty. He is alerted to recognize a decrease in urinary output, hematuria, flank pain, or alteration of the voiding pattern as danger signs. Prior to surgery of any type the patient is urged to notify his surgeon of the fact that he possesses but one kidney.

In our hands as in the hands of others, many patients with solitary kidneys have led and are leading useful lives. It remains imperative that factors predisposing to progressive renal deterioration, such as stasis, infection, and calculous disease, be continuously searched for and vigorously attacked.

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Enzyme Interaction Explored

A surgeon and a biochemist at the University of Pennsylvania have found evidence that a common mechanism may be responsible for deaths from three different conditions—strangulation intestinal obstructions, hemorrhagic pancreatitis, and irreversible shock.

Dr. Paul Nemir, Jr., associate professor of surgery, and Dr. David L. Drabkin, professor and head of biochemistry in the School of Medicine's Division of Graduate Medicine, have been working together on this problem for several years. Dr. Nemir also is director of the Division of Graduate Medicine. Their study will be continued under a $101,700 three-year grant from the National Institutes of Health.

Among the substances definitely identified with the toxic reactions, the investigators have singled out one that is manufactured by blood when it is acted upon by certain enzymes. The product of this interaction is a hemochromogen derived from the blood pigment (hemoglobin).

Hemochromogens have been recovered from the body fluids of a number of laboratory animals in whom the above conditions were induced, and it has also been recovered from patients.

Drs. Drabkin and Nemir have followed the course of this chemical from its formation to its entry into the bloodstream. They have shown that a very small amount of hemochromogen is lethal when injected into laboratory animals.

Under the new grant, the investigators will explore the mechanism of toxicity of the hemochromogens, how it acts on the heart, the vascular system, central nervous system, the liver, kidneys and other organs. They also will make a more detailed biochemical study of the breakdown of the blood pigment to hemochromogen.

Tuboplasty Survey

Presentation of a synthesis of accumulated data and a summary of recent improvements in tuboplasty surgery.

MARIO A. CASTALLO, M.D., AMOS S. WAINER, M.D., AND GEORGE M. ARNAS, M.D.

Philadelphia, Pennsylvania

Approximately twenty years have elapsed since we first explored the possibility of using splints in experiments to recanalize fallopian tubes of monkeys, in an endeavor to find a material to improve the results of occluded fallopian tubes after surgery in humans.[1] In these experiments, recanalization as a fallopian tube in monkeys only occured when polyethylene was utilized as the splinting material (Fig. 1 & 2). In the intervening years, many investigators have explored this challenge with variable success, both here and abroad.

This presentation endeavors to synthesize the accumulated data on the subject, and notes the improvements which have transpired during the intervening years.

Before surgery is contemplated, all other forms of treatment of sterility must be employed. The husband should be evaluated as fertile by a urologist who is interested in male fertility. Sperm count alone is not adequate. The number of women who may be helped by tuboplasty are not many.

Among others, Weir and Weir[1] reported that in thirty-two of their patients, 15 percent of infertility was cured by sex education alone; 50 percent conceived after hysterosalpingography; after other non-surgical treatment, 25 percent remained infertile. Smaith,[10] in a study of 1,524 sterile couples found that 13 percent conceived without any treatment whatsoever.

It is accepted that about 35 percent of all sterility in the female is due to a tubal factor, and many occluded fallopian tubes become patent with treatment other than surgery. Some occluded fallopian tubes recanalize in spite of surgical severance and, in the presence of long standing pelvic inflammatory disease, without treatment.

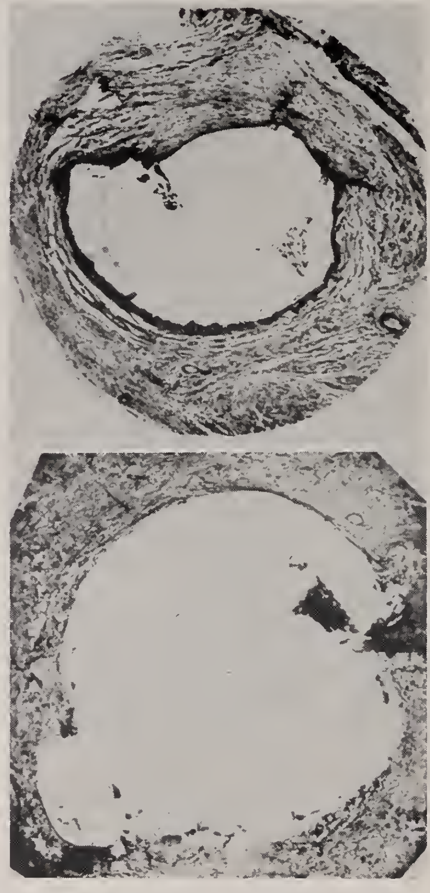

Fig. 1. Micro-photographs of regenerated monkey fallopian tube over wire. Fibrous tissue regeneration; no villi present. Details in original illustrations. (From Castallo, M. A., Fertility and Sterility 1-5: September, 1950.)

The number of pregnancies resulting from tuboplasty are proportionate to the extent of the pathology in the fallopian tubes, the site of obstruction, and the ability and experience of the gynecologist who does the first operative procedure. It has been suggested that in every region the man, or group of men, most interested and experienced should attempt tuboplasty for best results. Because of the many improvisations in the surgical procedures involved, and the selection of the various splinting materials available to suit each case, experience and judgment are vital.

In 1937, Greenhill[3] reported 818 cases of tubal surgery in which only about a 5 percent pregnancy rate occurred. Based on these findings and on personal experience, tuboplasty was looked upon for years by most gynecologists as meddlesome surgery.

In our first reported series of ninety-three cases (1953),[2] there was a 20 percent pregnancy rate and a 65 percent patency rate; while in 2,285 cases reported in 1956 by Siegler and Hellman,[9] a pregnancy rate of 19.9 percent occurred and a patency rate of 54.5 percent was reported. In the worldwide series of 3,018 cases collected by Pous Puigmacia,[6] 19.59 percent pregnancies and 53.94 percent patency was reported (Fig. 3). While American authors presented cases of tuboplasty with polyethylene alone, Puigmacia's report included cases in

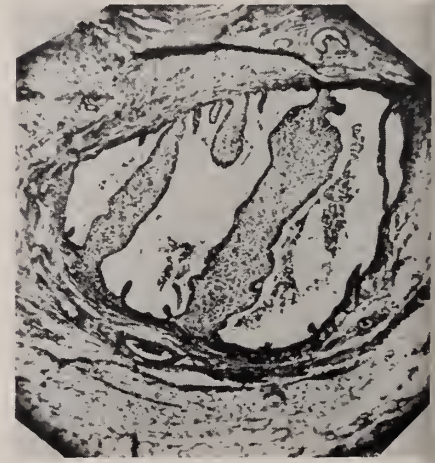

Fig. 2. Micro-photograph of regenerated monkey fallopian tube over polyethylene tubing. Only with this material were villi found. Details in original illustrations.

■ *Dr. Castallo is clinical professor of obstetrics-gynecology; Dr. Wainer, clinical professor of obstetrics-gynecology; and Dr. Arnas, associate in obstetrics-gynecology; all with Jefferson Medical College, Philadelphia.*

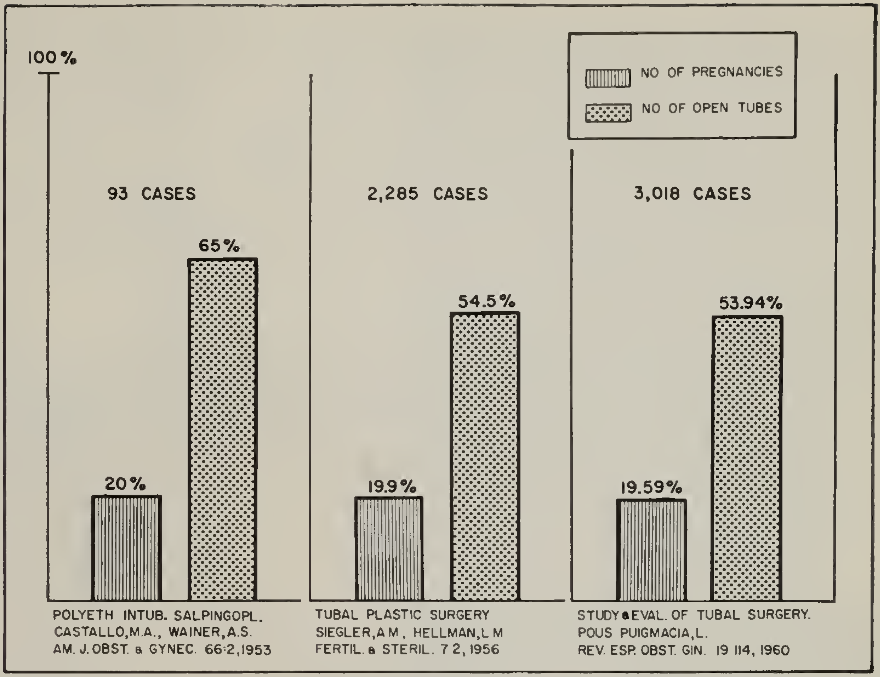

Fig. 3.

which polyethylene tubing was not used (Fig. 4). In salpingolysis, no polyethylene was used, and 74 percent of the tubes were patent. In salpingoplasty, patency occurred in 54.01 percent without polyethylene, and 36.03 percent with polyethylene. In end-to-end anastomosis, the results are directly reversed: 65.78 percent patency was obtained with polyethylene tubing, and only 35.71 percent without. In tubal implantation 71.90 percent were patent with polyethylene, while 43.05 percent without. It is evident that in end-to-end anastomosis and tubal implantation, the results are much better with the use of polyethylene.[6]

The latest results obtained by Hark and Weber[5] using a silicone prosthesis are higher than most for cornual end occlusions: five out of fifteen, which is approximately a 30 percent pregnancy rate.

Shirodkar,[8] in the February, 65 issue of **The Australian and New Zealand Journal of Obstetrics and Gynecology,** describes the procedure he employs (Fig. 5). This illustration is one in the series of his technic of placing a prosthesis into the uterine cavity with the attached winged extension into the severed occluded fallopian tubes. The prosthesis remains in position for six months.

Wirtz,[12] in **The Australian and New Zealand Journal of Obstetrics and Gynecology,** reports the highest percentage of success of any studies to date (Table 1). Of fifty-nine operations performed by him, 83 percent had patent tubes, proven by hysterosalpingography ten weeks after operation; of these, 52 percent allowed the patients to become pregnant; 10 percent of these had ectopic pregnancies.

The differences in management up to the time of these reports are: (1) the silicone prosthesis is allowed to remain for six months and, (2) in Wirtz's series, the use of antibiotics and cortisone derivatives was instilled into the tubes. Wirtz used a solution of crystalline Penicillin and Hydrocortisone 25 mgm. made up to 10 cc. injected from a cannula into the uterus twice a day for two days.

TABLE I

Results after Tuboplasty

No. of patients	Patency obtained	No. of pregnancies		
		Uterine	Ectopic	Total
59 (100%)	49 (83%)	25 (42%)	6 (10%)	31 (52%)

TABLE II

Results According to Site of Blockage

Site of block	No. of patients	No. of pregnancies		
Proximal	48 (81%)	Uterine 24	Ectopic 2	Total 26 (54%)
Distal	11 (19%)	Uterine 1	Ectopic 4	Total 5 (45%)

Eraslan, Hamernik, and Hardy[4] reported the replantation of the uterus and ovaries in dogs with successful pregnancy, in the archives of surgery, January, 1966. To the younger gynecologist with fervor and imagination, this report should give impetus to the possibility of giving hope to the woman who either has no tubes, or who has a diseased uterus which could be replaced by a uterus and adnexa obtained from normal women who die from any cause: a procedure which would leave normal pelvic organs if the immunologic rejection problem of tissues is solved.

Conclusion

(1) Best results in tuboplasty occur after careful selection of patients for operation.

(2) The gynecologists most interested and ingenious in each area should be selected to do tuboplasty.

(3) At the present time the silicone prosthesis seems best suited for cornual end obstruction.

(4) Use of instillation post-operatively in tuboplasty, repeated twice a

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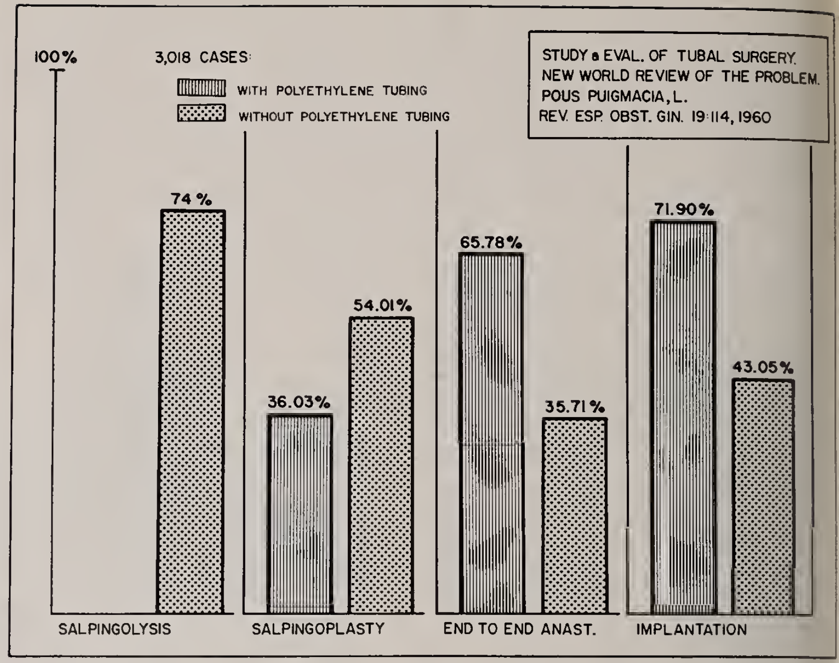

Fig. 4.

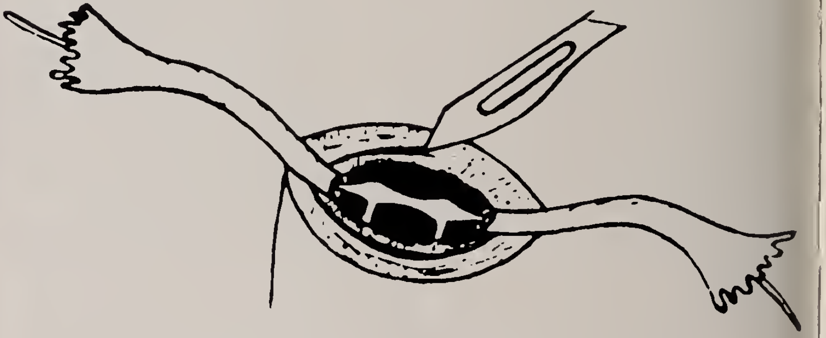

Fig. 5. (From Castallo, M. A., Fertility and Sterility **1**-5: September, 1950.) Introduction of the loop of the splint into the uterine cavity and mobilizatio of muscle flap. One of the series of illustrations on the use of a winged pros thesis. (From Shirodkar, U.N., Australian, New Zealand Journal of Obstetrics and Gynecology, **5**-1: February, 1965.)

day for two days, is a new addition to therapy.

(5) It is our impression that suppression of menses for six months during the time the prosthesis is in the uterus should forestall complications.

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DORSEY Season

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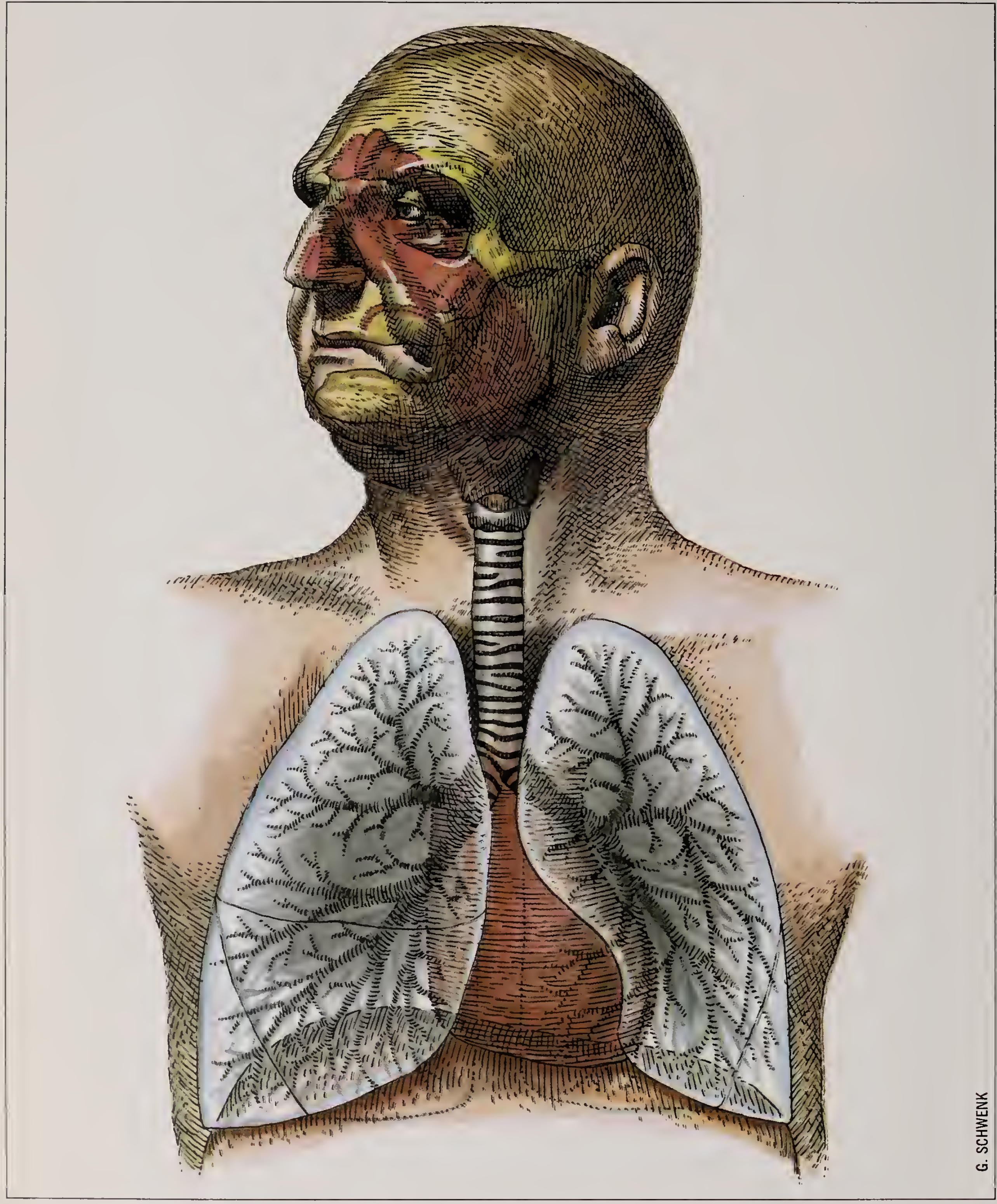
this issue: the common cold and the aging patient

the common cold and the aging patient

Louis J. Vorhaus, II, M.D., F.A.C.P.



Effects of aging on the anatomic and physiologic aspects of the respiratory apparatus.

The chest becomes more fixed, less mobile and less elastic as the bronchial walls and thoracic ligaments lose elasticity. The diaphragm and intercostal muscles atrophy and weaken. The lungs become smaller, flabbier and weigh less, decreasing vital and total lung capacity, increasing residual volume and the alveolar dead space.

Sir William Osler described pneumonia as the welcome friend of the aged patient, because the patient with pneumonia usually died quietly. But today, the well-informed physician is an even better friend of the aging patient, since it is better to live than to die, no matter how quietly.

One of the first avenues of approach in the control of the hazards of respiratory disease in the aging patient is prompt and proper attention to the common cold or upper respiratory infection. The common cold may be the first step in the relatively short path to lower respiratory infection, broncho-pneumonia and death. This train of events occurs frequently among older persons. Indeed, pneumonia is one of the most common causes of their admission to hospitals and ranks high on the list of geriatric killers. Colds are more debilitating in elderly people and the aged are more likely candidates for secondary infections such as sinusitis and bronchitis. These infections, in turn, are more prone to lead to bronchopneumonia, because of lowered resistance and anatomic and physiologic changes in the lungs of the elderly.

What is different about the respiratory tree of an aged person and that of an otherwise healthy younger adult? Aging certainly takes its toll on all parts of the body, affecting both anatomic and physiologic aspects of the respiratory apparatus. These changes are in part due to the wear and tear that occurs over the years; the repeated bouts of respiratory infection, long exposure to atmospheric pollutants, to occupational inhalants, smoking, malnutrition, obesity, inactivity and the development of other diseases which may affect the lungs.

With the passage of years, the lungs change. They become scarred and emphysematous and lose their compliance. The whole chest becomes more fixed, less mobile and less elastic.

the anatomic changes that occur in aging render the lungs less efficient. Tests of pulmonary function in senescence show a deterioration characterized by a decrease in vital capacity and total lung capacity, an increase in residual volume and alveolar dead space. Maximum breathing capacity is reduced and uniformity of ventilation deteriorates. These problems are often aggravated by the obstructed breathing, fever and secondary infection associated with the common cold, placing an additional stress on the entire cardiopulmonary reserve.

In addition, the efficiency of a cough is below par in older persons even though they are in good health. This is partly due to the decreased respiratory excursions and distensibility of the chest wall, and partly from loss of elasticity of bronchial walls which tend to make them collapse in a cough.

The elderly patient's resistance to infection is often reduced. Nutritional deficiencies are more common in aged people. There is some evidence to indicate that their capacity to respond to stress is less efficient. Finally, there is often relatively meager symptomatic response to acute disease. The absence of obvious or dramatic clinical signs and symptoms of severe illness is particularly dangerous because, coming as it

(concluded on following page)

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does in a person whose defenses are weakened both locally and systemically, pulmonary disease may progress rapidly to irreversible stages before medical attention is sought. Respiratory infection is especially hazardous because the aged patient responds badly to hypoxia. Not only is his response to oxygen lack impaired, but the work of breathing, due to decreased compliance of the lung and increased stiffness of the thorax, is markedly augmented.

Many patients late in life are in a precarious and delicate cardiopulmonary balance which is easily decompensated from relatively minor insults such as colds and upper respiratory infections.

For all of these reasons, geriatricians long have stressed the importance of preventing respiratory insults. Today we have better ways of treating respiratory infection, improved techniques for clearing the lungs and bronchial tubes of secretions and better understanding of ways of improving ventilation. We possess a broader spectrum of antimicrobial agents including newer ones to deal with previously resistant organisms. Even so, the death rate from pneumonia is high in older people, and it is preferable to avoid the disease than to treat it. To do so, attention must be paid to the general maintenance of good health and all that implies, as well as to the prevention, elimination and treatment of associated conditions that predispose to or cause pneumonia such as chronic upper or lower respiratory infection, respiratory allergy, chronic sinusitis and exposure to inspired irritants.

Colds and other minor respiratory infections, which favor the development of broncho-pneumonia, should be treated vigorously and promptly, particularly those patients whose aging process has been accompanied by the development of chronic pulmonary disease. Upper respiratory passages should be cleared with decongestants. Sinuses should be drained adequately. And, when indicated, appropriate antimicrobial therapy should be instituted before serious infection of the lower respiratory tree supervenes.

In decades past it was understandable that physicians welcomed pneumonia for the aged patients because it offered them a quiet and peaceful demise. Today we recognize that in many cases, peaceful as it may have been, such deaths were often avoidable. With the current knowledge and understanding of the problems that respiratory infections impose on aging people, vigilant medical attention can often restore them to a vigorous, rewarding and productive life so that the many opportunities that exist today for people to enjoy their golden years are realized and not stolen by untimely death.

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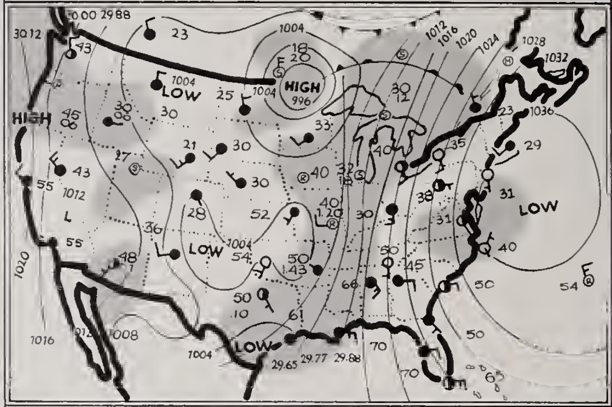

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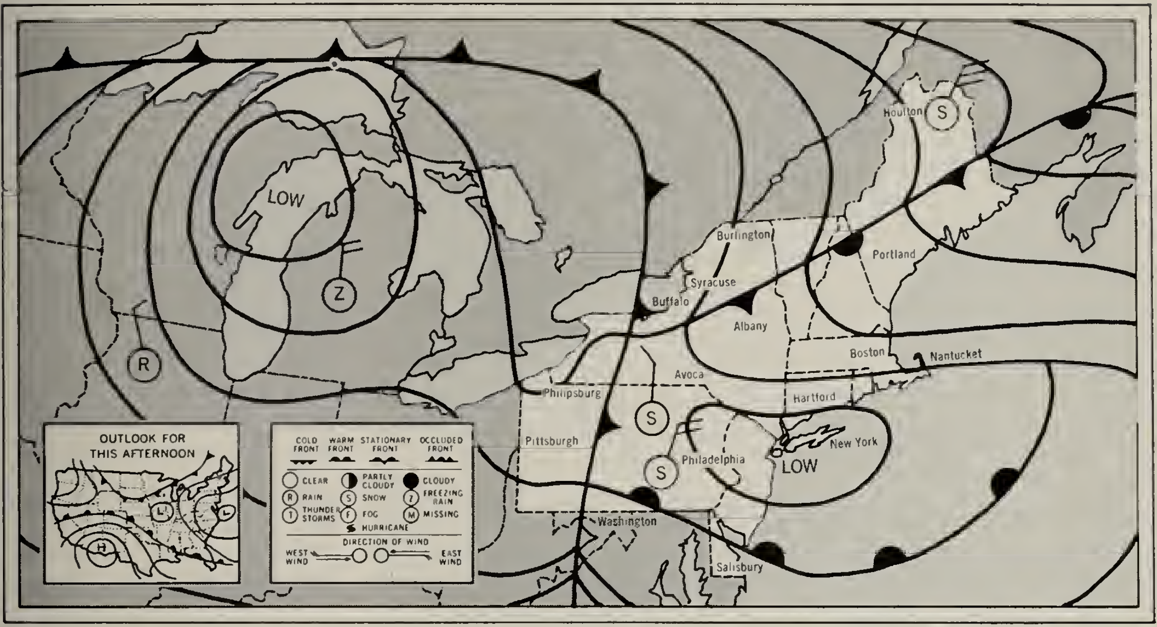

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Colles' Fracture

A plan for treatment of hyperextension fractures of the distal radius in adults is described.

ANTHONY F. DE PALMA, M.D., JOHN J. GARTLAND, M.D., AND JOHN J. DOWLING, M.D.

Philadelphia, Pennsylvania

Dissatisfaction with the final result achieved in the treatment of many patients with Colles' fracture led, some years back, to a critical evaluation of the management of this extremely common fracture at the Jefferson Medical College Hospital.

The information obtained by these studies has resulted in the adoption of a plan of treatment that has given consistently good results. It is the purpose of this communication to describe this plan of treatment and the reasons supporting its adoption.

The Fracture

The initial description of this fracture was made by an Irish surgeon, Abraham Colles, in 1814.[1] Although his original description referred only to a fracture passing through the cancellous portion of the radius 4 cm. above the wrist joint, the term Colles' fracture has, by common usage, come to refer to all hyperextension fractures of the distal radius in adults, with or without accompanying fracture of the ulnar styloid.

As a consequence of this injury three characteristic displacements may occur: the distal radial fragment may be displaced dorsally and tilted backwards; some loss of the normal inward tilt of the distal end of the radius is apparent, due to impaction and radial deviation of the distal fragment, and shortening of the radius occurs, resulting from a combination of impaction, loss of the normal inward radial tilt, and absorption of bone at the fracture site.

The use of the term "Colles' fracture" without further description is somewhat misleading. The term actually indicates only the anatomic area sustaining the injury. It does not take into account the direction of the fracture lines, the degree of comminution, or whether the fracture is displaced or impacted. These are important considerations having considerable influence on the final result.

It has been said that no two Colles' fractures are alike. Although this is not strictly true, the fractures may be grouped into several distinct types; a classification of these has been described.[2]

Group I. Simple Colles' fracture with no involvement of the radial articular surface.

Group II. Comminuted Colles' fracture with fractures of the radial articular surface in which the fragments are not displaced.

Group III. Comminuted Colles' fracture with fractures of the radial articular surface in which the fragments are displaced.

Evaluation of any treatment method must be made relative to the type of fracture sustained. The final result and ultimate prognosis will depend to some extent upon the seriousness of the anatomic displacement.

The Problem

The solution to the problem posed by this fracture lies in a perfect anatomic reduction coupled with totally efficient immobilization during the period required for bone union. This perfect solution is frequently not achieved in clinical practice, apparently for a variety of reasons. A major fracture text states "the prognosis in the usual Colles' fracture is good so far as function of the hand and wrist is concerned, but it is not uncommon to find some residual deformity which results either from loss of position while in the splint or from failure to obtain an adequate reduction." [3]

Most Colles' fractures lend themselves readily to closed manipulative reduction. With experience there should be no particular difficulty achieving an adequate reduction of the fracture by closed manipulative means. The use of skeletal traction or primary open reduction is rarely, if ever, indicated, and these treatment techniques have few adherents.

The greatest source of difficulty seems to lie in the type of immobilization chosen to hold the fracture fragments after reduction has been obtained. The usual types chosen include volar and dorsal plaster splints, short arm circular cast, sugar tong splint, long arm circular cast, and some type of skeletal pin fixation.

Some of these forms of immobilization are, however, too inefficient for routine use with Colles' fracture.

It probably makes little difference what type of immobilization is chosen in dealing with a Group I Colles' fracture. These generally are stable fractures and, if an adequate reduction has been obtained, show little tendency to displace during the immobilization period.

Most Colles' fractures, however, are comminuted, falling into the Group II or Group III classification. These are basically unstable fractures and may readily displace if allowed by an inefficient immobilizing apparatus.

Until 1950 the majority of patients with Colles' fracture treated at the Jefferson Medical College Hospital were reduced by closed means and immobilized in volar and dorsal plaster splints for an average period of six weeks.

Our close interest in this fracture dates from a study of a group of patients with healed Colles' fracture treated in this manner. This study, made in our department, aimed to determine, if possible, what factors are responsible for unsatisfactory end results and to evaluate this method of immobilization, which is widely advocated and still commonly used.[4]

Sixty patients, each having had a true Colles' fracture, were re-examined one year or later after the fracture. At the time of the evaluation examination a complete fracture history was taken and a physical examination was

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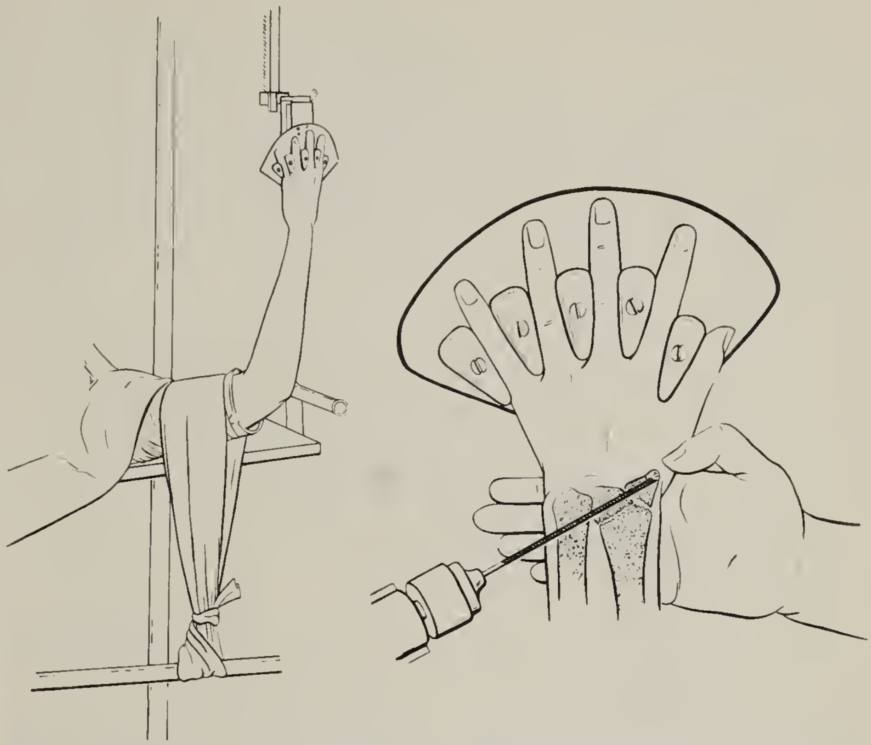

Fig. 1. Traction and countertraction are applied using the Weinberger traction apparatus and a fracture table. As the Steinmann pin is inserted, the wrist is pronated and an assistant pushes dorsalward at the fracture site to help maintain the palmar angulation of the distal radial articular surface. With his thumb, the assistant indicates the location of the radial styloid process and thus helps the surgeon to direct the pin.

made of both wrists, including accurate measurement of all wrist motions with a goniometer according to the method of Cave. A series of five roentgenograms was then made of both the normal and the injured wrists in the following positions: (1) postero-anterior, (2) lateral, (3) oblique, (4) postero-anterior with the hand in complete radial deviation, and (5) postero-anterior with the hand in complete ulnar deviation. These roentgenograms, together with the prereduction, postreduction, and follow-up films, gave us complete roentgenographic coverage of all phases of the fracture. In addition, an interval film, made at the time plaster fixation was discarded, was available for study in 50 percent of the cases.

The components of a Colles' fracture include dorsal tilt of the distal radial fragment and loss of the normal inward tilt of the distal end of the radius (radial deviation), both measured in degrees, and shortening of the radius, measured in millimeters. The value for each component was computed on each of the roentgenograms by direct measurement. This method of measurement made it possible to observe the behavior of each fracture component as healing progressed.

In addition to the roentgenographic measurements, a method of evaluating functional end results was devised, making use of a point system based on authoritative disability charts and taking into account residual deformity, the subjective evaluation of the patient, the objective findings, and any complications arising directly from the fracture. Analysis of the cases according to this point system led to the formation of certain point ranges for each end-result group, thus providing a constant rigid yardstick for evaluating each fracture. By applying this yardstick to this series of fractures it was possible to tabulate functional end results as excellent, good, fair, or poor.

Study of the data developed during the course of this investigation led to the following conclusions:

(1) In many instances the original fracture reduction was inadequate. The importance of this factor in influencing end results was illustrated by the fact that those cases showing the most complete reductions were listed among the excellent end results.

(2) The type of immobilization used in this series, volar and dorsal plaster forearm splints, was inefficient and inadequate. Sixty percent of the patients lost a substantial amount of reduction during the immobilization period.

(3) The type of Colles's fracture incurred bears a definite relationship to the end result obtained. When the type of fracture sustained was analyzed in relation to the final end result, the bulk of unsatisfactory results were found in the two groups with comminuted fractures. Unsatisfactory results were found in only 14 percent of the Group I fractures, while in Groups II and III the number rose to 27 percent and 42 percent respectively.

(4) At the end of the follow-up period, which averaged eighteen months in this series, the functional end result evaluation showed 68 percent of patients obtained a satisfactory result and 32 percent obtained an unsatisfactory result.

It was our feeling that the functional end results obtained in this common and often lightly regarded fracture were not commendable. It was also evident that the use of volar and dorsal plaster splints was not defensible and should be abandoned as a type of immobilization for Colles' fracture.

Our interest was stimulated to find a more adequate method of treatment that would combine a mechanically efficient form of immobilization with an improved anatomical restoration, leading ultimately to improved functional results.

Our data suggested that the type of immobilization chosen should be such that would immobilize the elbow in 90 degrees of flexion with the forearm in pronation. This rules out the use of a circular short arm plaster cast.

Theoretically, the use of a long arm plaster cast with the wrist in the Cotton-Loder position, would seem to meet our criteria. There are two major disadvantages. First, a circular cast is a rigid tube. As edema subsides and muscle atrophy appears, looseness could easily allow loss of fracture reduction. Secondly, the Cotton-Loder position, which requires the hand and wrist to be immobilized in full palmar flexion, full pronation, and ulnar deviation, is a dangerous and unnecessary position. Its use contributes materially to permanent wrist and finger stiffness.

Our Solution

1. *Ulnar Pinning*

Since the majority of Colles' fractures presented to us were comminuted (Group II or III) our initial concern was to devise a method of treatment to improve the results in these groups.

A method of ulnar pinning was devised for use in the treatment of comminuted Colles' fractures.[5] A group of fifty patients treated by this method were evaluated after a follow-up period that averaged five years. The method of study carried out with this group of patients was similar to the method used in the initial series of patients.[6]

The method of ulnar pinning is a form of internal skeletal fixation using the intact ulna as a fixation point through which a threaded Steinmann pin (seven sixty fourths of an inch in diameter) is obliquely directed and advanced, under roentgenographic control, until the radial styloid process is impaled. This holds the reduced position which has been achieved before insertion of the pin by the Weinberger traction apparatus. After the pin is in place, it is cut off beneath the skin. (Fig. 1).

The position of the pin is such that the comminuted fragments are maintained in the reduced position by the taut envelope of wrist ligaments that encompass the fragments. The tension in the ligaments is maintained by the pin much as a tent pole supports the roof of a pyramidal tent. A long arm plaster cast is applied and the internal fixation device is left in place until there is roentgenographic evidence of callus (a minimum of eight weeks). The device is then removed, under local anaesthesia, through a small skin incision.

This method is similar in principle to other pins-in-plaster techniques reported but avoids the hazard of metallic fixation protruding through the skin or entering a portion of the extremity other than the site of the fracture. This technique confines the nonprotruding threaded wire to the area of fracture and allows easy, full and painless movement of all fingers throughout the period of immobilization.

Study of the data developed during the course of the investigation into the value of this method led to the following conclusions:

(1) The use of the Weinberger traction apparatus for reduction of comminuted Colles' fractures allows a more complete reduction and better anatomic restoration of the fragments.

(2) When the pin had been placed in good position and had been allowed to remain in situ for at least eight weeks, loss of the original reduction was minor or nil. Ulnar pinning, therefore, is a very efficient method of immobilization for comminuted Colles' fractures. (Fig. 2)

(3) The percentage of unsatisfactory results in Group II and III fractures was significantly decreased by the use of ulnar pinning. The percentage of unsatisfactory results in Group II fractures declined from 27 percent to zero percent, whereas in Group III fractures the percentage decreased from 42 percent to 17 percent. (TABLE I)

(4) At the end of the follow-up period, which averaged five years in this series, the functional end result evaluation showed 84 percent of patients obtained a satisfactory result as compared to 68 percent in the original series. (TABLE II).

2. *Sugar Tong Splint*

Our next concern was to find an effective nonpinning technique that would offer efficient immobilization for Group I, Group II, and the occasional Group III fracture that was not badly comminuted or displaced. We chose the sugar tong splint.[7]

The splint is made from a single long plaster mold which begins just behind the metacarpal heads dorsally and extends along the dorsal aspect of the forearm, around the flexed elbow, and along the volar aspect of the forearm to end at the distal palmar flexion crease. The wrist is main-

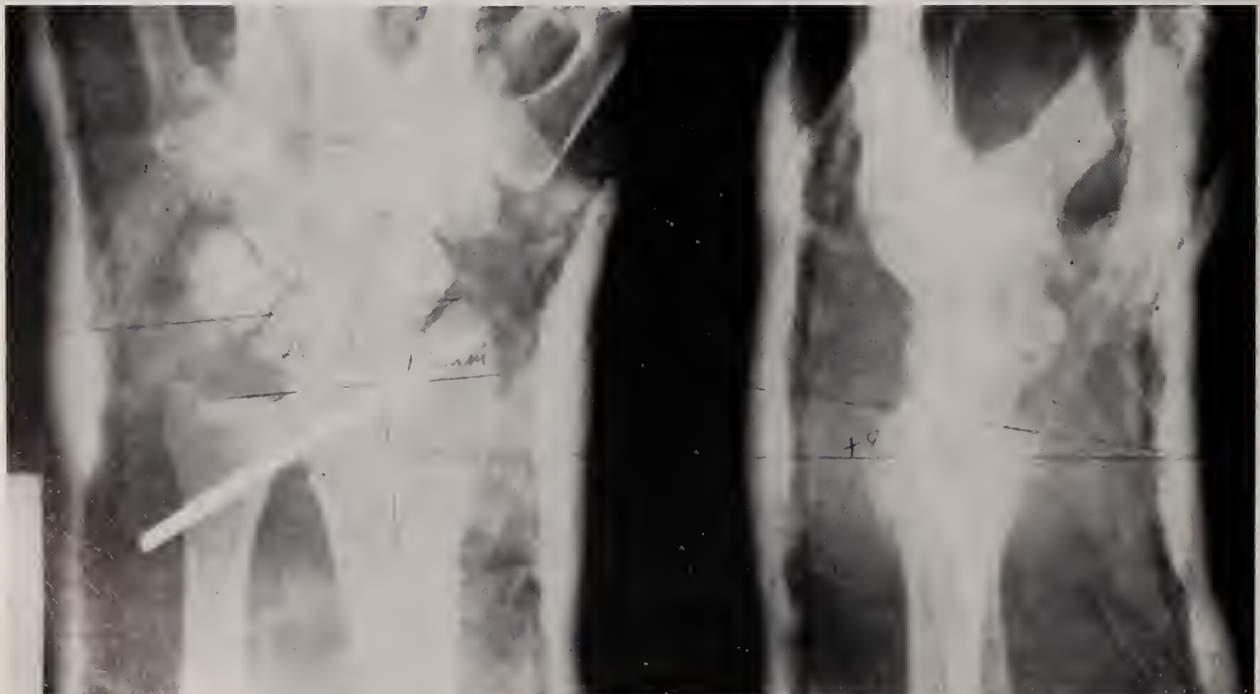

Fig. 2. Roentgenograms demonstrating actual position of Ulnar pin as an effective immobilization method for comminuted Colles' fracture.

tained in mild palmar flexion and ulnar deviation. It is then wrapped snugly with Kling bandage which extends several inches above the elbow and is secured with adhesive tape. Taking the plaster splint around the flexed elbow and securing it in this manner effectively limits pronation and supination of the forearm. One week after its application, the gauze bandage is removed and the tongs manually compressed and snugly rebandaged. This can be repeated as frequently as necessary in order to insure maintenance of effective immobilization. Our period of immobilization with the sugar tong splint has been six weeks.

This splint has all the advantages of a circular long arm cast but avoids the disadvantage of being a rigid plaster tube. It can easily be adjusted to take up the slack occasioned by the disappearance of edema or, conversely, can be easily adjusted in the face of increased swelling. Its clear advantage is that it can be repeatedly adjusted to compensate for any change of volume in the forearm or in the position of the fracture fragments.

To date this form of immobilization has been used in forty-seven Colles' fractures. This third series of patients has not been followed long enough, at this writing, to complete their functional end result evaluation. However sufficient data has been accumulated to make some critical judgment on the effectiveness of the sugar tong splint in the immobilization of Colles' fractures.[8]

Prereduction, postreduction, and three week interval roentgenograms, in addition to a roentgenogram taken when the splint was discarded after six weeks, were available for analysis in thirty-three patients. The behavior of each fracture component was observed during the healing period by measuring the degrees of dorsal tilt and radial deviation and the amount of radial shortening in millimeters on the four available films in each case. The numerical data obtained clearly outlines the efficiency of the immobilizing apparatus.

TABLE I

Evaluation by Group

	GROUP II		GROUP III	
	Splint Series	Ulnar Pin Series	Splint Series	Ulnar Pin Series
Excellent	33%	67%	4%	35%
Good	40%	33%	54%	48%
Fair	22%	0%	38%	17%
Poor	5%	0%	4%	0%

TABLE II

Functional End Result Evaluation

	Splint Series	Ulnar Pin Series
Satisfactory	68%	84%
Unsatisfactory	32%	16%

Our material at this time indicates that the sugar tong splint, properly applied and maintained, is an efficient form of immobilization for Group I and Group II Colles' fractures. It is less efficient in Group III fractures in that radial length cannot be maintained.

Conclusions

(1) The sugar tong splint, properly applied and maintained, is an efficient form of immobilization for the reduced Group I and Group II Colles' fracture.

(2) Severe comminution seen in many Group II and most Group III Colles' fractures requires skeletal pin fixation to maintain reduction, particularly radial length. Ulnar pinning is an effective technique to achieve this result.

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Thomas Jefferson's personal physician, and professor of the Institutes of Medicine and Medical Jurisprudence at Jefferson Medical College.

IRWIN RICHMOND, PH.D.

Harrisburg, Pennsylvania

ROBLEY DUNGLISON IN HIS PRIME

From Radbill, S. X., **Autobiographical Ana of Robley Dunglison** Frontispiece

Thomas Jefferson's personal choice as professor of medicine for the newly opened University of Virginia was denounced by one medical journal as "most injudicious and subversive of the general good of our citizens, and especially of the dignity and interests of our professional brethern." Why the attack? Simply because Robley Dunglison, M.D. was not an American citizen in an era of intense nationalistic feeling.

Born in Keswick, Cumberland, England, on January 4, 1798, Dunglison was at first brought up to become a West India planter as heir apparent of his maternal uncle, Joseph Robley, "an extensive landed proprietor in Tobago and Saint Vincents, after whom, indeed, I was named. . . ."

When his uncle died, the family changed its sights and decided that Robley should follow a profession; either law or medicine. Accordingly, at age seventeen he was apprenticed to a Keswick surgeon, John Edmondson. He later went on to attend medical lectures in Edinburgh, Paris, and London, and in 1818 passed his examinations at London's Royal College of Surgeons. Then, probably because such degrees were not readily available in the British Capital, he received his M.D. from the University of Erlangen, apparently *in absentia* by sending off a copy of his thesis ("De Neuralgia") and a fee.

Ready to begin his professional life, Dr. Dunglison felt general practice to be "very distasteful," and he decided to restrict his career to "Obstetrics and the Diseases of Women and Children." As an outgrowth of his interests, he published in 1824, *Commentaries on the Diseases of the Stomach and Bowels of Children.* The widely read book attracted the attention of Thomas Jefferson and led to Dunglison's coming to America.

After Jefferson's emissary, Francis Walker Gilmer, offered Dunglison a position at the University of Virginia, the young Englishman went over and proposed to his girlfriend, Hariette Leadan, and asked her to accompany him to the United States. Within a month the newlyweds were on their way to Charlottesville, Virginia where Dunglison became the personal physician to eighty-three year old Thomas Jefferson, who was suffering a urinary ailment. "On examining the uretha," Dunglison reported, "I found that the prostatic portion was affected with stricture, accompanied and apparently produced by enlargement of the prostate gland. This required the use of a bougie, which he soon learned to pass himself. . . . This condition interfered, however, materially with his horseback exercise to which he had been accustomed. . . ."

Dunglison was an eye witness to

the crowd scenes that descended on Monticello to visit and be entertained by Jefferson, who in his later years was constantly fighting bankruptcy. The sympathetic physician expressed himself whole-heartedly in favor of a federal pension for retired Presidents —but it would take over 130 years for this to become a reality.

In the spring of 1826, Jefferson's health became perilous. The diarrhea which had troubled him intermittently since 1801 became worse and made him especially weak. What actually caused this chronic ailment has intrigued medical historians. Was it his constant usage of calomel, amebiasis, or a malignancy of the bowels?

On the third of July, the founding father went into a "stupor" then "about seven o'clock in the evening . . . he awoke, and . . . asked 'Is it the 4th?' These were the last words I heard him utter." Curiously Jefferson's last day, July 4, 1826 was also the death date of his friend and fellow patriot John Adams whose innocent last words were "Jefferson still lives."

Dunglison, during his later career, was also to be called upon to provide medical treatment for three other Presidents: Madison, Monroe, and Jackson. Madison suffered from "rheumatic affection . . . febrile movements, and more or less dyspnoea . . ." Monroe, whom Dunglison treated for some unspecified malady, was considered by the physician (and by subsequent historians) to be of much lesser intellect than Jefferson and Madison. President Jackson's illness was diagnosed as "pleurodyne" (probably intercostal neuralgia) brought about by wounds he had received in battle and in duels. When Dunglison was called in as a consultant in the case he was amazed to learn that Old Hickory's "usual remedy—for he was *heroic* in the treatment of his own case—was to lose a quart of blood." Dunglison's remedy: stoppage of bleeding and the application of "a warm plaster, *animated* by cantharides. . . ."

In 1833, Dunglison, motivated by his wife's poor health, went north and accepted a position at the University of Maryland's Medical School as Professor Hygiene, thereby, becoming in essence America's first professor of preventive medicine and public health. Three years later he moved to Philadelphia as Professor of the Institutes of Medicine and Medical Jurisprudence at Jefferson Medical College where he was to remain until his retirement in 1868. He was the seventh member of a faculty which included George McClellan, M.D. (father of the Civil War General) and John Revere, M.D. (Paul's son).

The Philadelphia to which Dunglison came was the medical capital of the United States, but the institution he joined was clearly considered to be the city's second medical school, especially by the faculty of its first—the one at the venerable University of Pennsylvania—whose professors had tried to prevent the chartering of Jefferson Medical College in 1824.

Dr. Dunglison set out on a deliberate campaign to win over the members of the older school's faculty. And he succeeded in every cause, with the exception of notoriously anti-Jefferson Nathaniel Chapman, M.D., considered by many as the "unquestioned head of the medical profession." Dunglison naturally had a smaller opinion of his sole spurner and thought it "Strange, that so great a weight should have been hung upon so small a wire."

Even without Chapman's endorsement the English physician, now respectably Americanized, became easily assimilated into the medical and intellectual worlds of Philadelphia and was soon active in sundry organizations, including the American Philosophical Society, Athenian Institute, Monday Evening Club, and a committee which prepared *an appeal to the people of Pennsylvania on the subject of an asylum for the insane poor of the Commonwealth.*

As a teacher of the institutes of medicine (physiology), Dr. Dunglison was influential and widely respected, and he has even been called the "Father of American Physiology", but he was not a profound thinker and most of his knowledge of disease was based upon readings rather than research or experience. One notable exception to his avoidance of experimentation occured in Washington, D. C. in the early 1830's when Dunglison co-operated with William Beaumont, M.D. in the latter's epic work on window-stomached Alexis St. Martin. On the whole, Dunglison was bookish, able to present a very polished and attractive medical performance, and from this point of view for his day, was a great teacher.

THOMAS JEFFERSON

By Thomas Sully. Photograph Reproduced Courtesy of The American Philosophical Society

Perhaps his place in history owes more to his writings than his teaching. He was the author of a number of articles and medical books in addition to the one which brought him to America. Among his other important monographs, most of which went through many editions, were *Human Physiology,* 1832 (the first American-written physiological text); *Elements of Hygiene,* 1835, and *The Practice of Medicine,* 1842. Taking a fling into the memoir field he wrote an eight volume autobiographical ana which remained in manuscript form until it was edited by Samuel X. Radbill, M.D. in 1963.

Dr. Dunglison's most widely used volume was *A New Dictionary of Medical Science and Literature* (again an American first) published in 1833. Remaining in continuous demand several years after his death (April 1, 1869), his son Richard J. Dunglison revised this work and published it as the *Medical Lexicon: A Dictionary of Medical Science*—truly a fitting monument for a man whose students nicknamed him the "walking dictionary."

Psychiatry Course at Temple

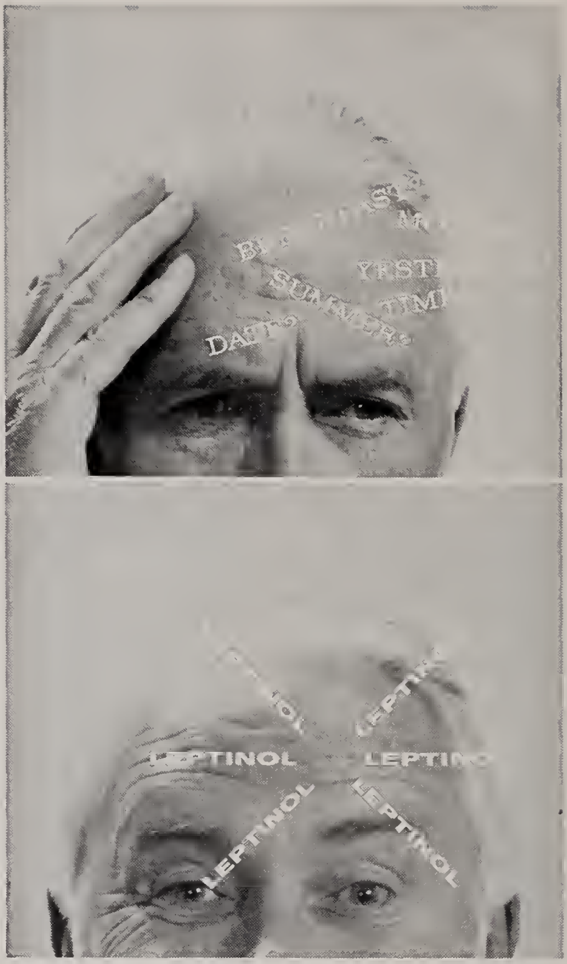
The Department of Psychiatry of Temple University Health Sciences Center will hold a two-day seminar "Psychiatry 1966 for the General Practitioner," November 5–6, in Philadelphia. The seminar will cover the latest advances in psychiatry as they apply to physicians in general practice. Formal presentations will center on sexuality and psychopharmacology.

Further information may be obtained from Dr. R. Bruce Sloan, Temple University Hospital.

Junior Fellows to Meet at Temple

The Junior Fellows of District III have selected the Temple University Hospital as the site for their December meeting. Site for the spring meeting, to be held in May, 1967, is the Harrisburg Hospital.

Dr. Joel F. Bower of Pittsburgh has been chosen President-elect of the Junior Fellows. Others on the slate of nominations, elected at the spring meeting in Newark, New Jersey, are: Dr. Ted Varbinski of Reading, Vice-president and Dr. A. Lam, of Allentown, Secretary-Treasurer.



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When elderly patients display symptoms of apathy, mental confusion, memory lapses... consider LEPTINOL

Leptinol is a useful medication that deters senile mental deterioration by stimulating the cerebral vasomotor and respiratory centers . . . increasing pulmonary ventilation and the supply of blood and oxygen to the brain.

Non-addicting Leptinol also is valuable in long-term treatment, since patients do not establish a tolerance.

Each LEPTINOL bi-layer tablet contains: PENTYLENETETRAZOL, 100 mg., NIACIN, 50 mg., THIAMINE HYDROCHLORIDE, 1 mg., ASCORBIC ACID, 20 mg. DOSE: one or two tablets, 3 times daily. Leptinol produces such a sense of well-being, patients should be cautioned not to exceed recommended dose which offers maximum effectiveness.

Side Effects:—overdosage may produce tremor, convulsions or respiratory paralysis.

Caution should be taken when treating patients with a low convulsive threshold.

Write for detailed literature and starter Leptinol doses.

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Doctor,

Here is the Abbott anorectic program designed to meet the individual needs of your overweight patients.

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DESOXYN® Gradumet® (methamphetamine hydrochloride)

Smooth appetite control plus mood elevation.

The obese patient on a diet often has to battle depression as well as overweight. Desoxyn Gradumet helps the dieter in both battles by elevating the mood while it curbs the appetite. Thanks to the Gradumet, medication is smoothly released all-day from a single oral dose.

If she can't take plain amphetamine, put her on DESBUTAL® Gradumet

Calms anxieties; controls compulsive eating.

Desbutal Gradumet provides 2 drugs in 2 tablet sections, combined back to back to form a single tablet. One section contains Desoxyn to curb the appetite and lift the mood; the other contains Nembutal® (pentobarbital) to calm the patient and counteract any excessive stimulation.

Both drugs are released in an effective dosage ratio throughout the day.

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Program

Not all long-release vehicles are the same. Here is why the Gradumet is different and what it means for your overweight patients.

The release action is purely physical and relies on only one factor common to every patient: gastrointestinal fluid. There is no dependence on enteric coatings, enzymes, motility, or an "ideal" ion concentration in the gastrointestinal tract.

Your patients get a measured amount of medication, moment by moment, throughout the day.

They are not subjected to ups and downs of drug release . . . or to erratic release from patient to patient . . . or to erratic release in the same patient from day to day.

That's why the Gradumet provides controlled-release as well as long release.

Perhaps you saw the Gradumet model demonstration which shows that the release is entirely physical. When fluid is added, the drug in the outer ends of the channels dissolves. As fluid penetrates deeper into the channels, there is a continuous release of medication. The rate of release is rigidly controlled by the size and number of channels.

choice of 5 strengths

Abbott
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Methamphetamine Hydrochloride in Long-Release Dose Form

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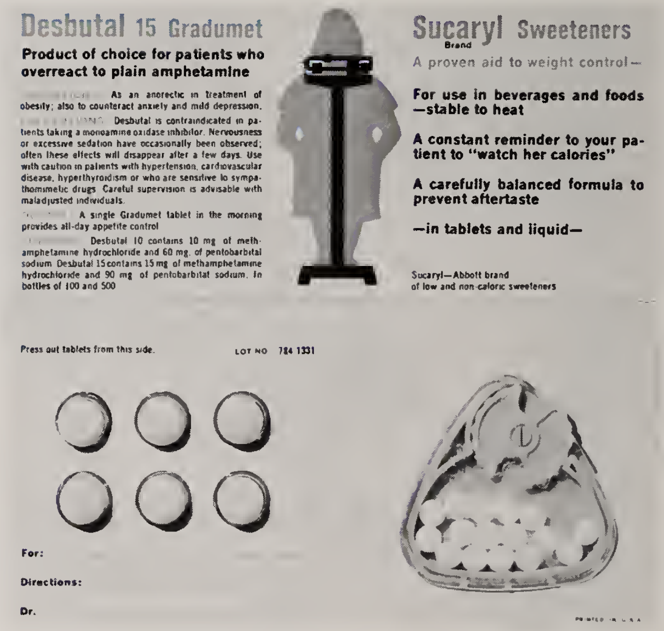
10 mg. Methamphetamine Hydrochloride,
60 mg. Pentobarbital Sodium

DESBUTAL 15 Gradumet

15 mg. Methamphetamine Hydrochloride,
90 mg. Pentobarbital Sodium

samples available

Each sample contains 6 tablets and a filled Sucaryl® Sweetener dispenser. For a supply, write Abbott Laboratories or ask your Abbott man.



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As an anorectic in treatment of obesity; also to counteract anxiety and mild depression.

Desbutal is contraindicated in patients taking a monoamine oxidase inhibitor. Nervousness or excessive sedation have occasionally been observed; often these effects will disappear after a few days. Use with caution in patients with hypertension, cardiovascular disease, hyperthyroidism or who are sensitive to sympathomimetic drugs. Careful supervision is advisable with maladjusted individuals.

A single Gradumet tablet in the morning provides all-day appetite control

Desbutal 10 contains 10 mg. of methamphetamine hydrochloride and 60 mg. of pentobarbital sodium. Desbutal 15 contains 15 mg. of methamphetamine hydrochloride and 90 mg. of pentobarbital sodium. In bottles of 100 and 500

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A proven aid to weight control—

For use in beverages and foods —stable to heat

A constant reminder to your patient to "watch her calories"

A carefully balanced formula to prevent aftertaste

—in tablets and liquid—

Sucaryl—Abbott brand
of low and non-caloric sweeteners

Press out tablets from this side.   LOT NO 784 1331

For:

Directions:

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economy

Patients, in many cases, save enough to get five weeks of medication for the price of four, compared to other leading long-release anorectics.

CONTRAINDICATION: Desoxyn and Desbutal are contraindicated in patients taking a monoamine oxidase inhibitor.

PRECAUTIONS: Use with caution in patients with hypertension, cardiovascular disease, hyperthyroidism, old age, or those sensitive to sympathomimetic drugs or ephedrine and its derivatives. Careful supervision is advisable with maladjusted individuals.

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EDITORIALS

Your Patient with Neurological or Sensory Deficit

The diagnosis, treatment and rehabilitation of neurological and sensory disorders poses an enormous challenge to all health care practitioners in Pennsylvania. Based on a study of needs and resources in these fields by Jefferson Medical College and the State Department of Health, we are faced with the conclusion that many seriously debilitated individuals may be receiving less than adequate care. This is based upon facts indicating an acute shortage of medical manpower, as well as diagnostic and therapeutic facilities, in many parts of the state.

The magnitude and seriousness of neurological and sensory disease in Pennsylvania is clearly seen in the use of our state's general hospitals. We have, perhaps, been too quick in assuming that the neuro-sensory patient makes relatively little use of short-term hospital facilities. This has been proven to be incorrect. During 1962, upwards of sixty-six thousand hospital discharges were in the neuro-sensory category, accounting for nearly 6 percent of all discharges. Most of these conditions require the attention of highly trained medical specialists. Stroke and cerebral trauma, which accounted for over twenty thousand discharges, must be viewed as a serious challenge to our hospital's medical resources. Approximately ten thousand cases of cataract and two thousand cases of glaucoma and strabismus were recorded on an in-patient basis during this one year period. Nearly ten thousand persons were hospitalized for serious hearing disorders. Otosclerosis, which is recognized as requiring a difficult surgical procedure, contributes nearly 2,500 discharges annually.

We must now raise the question as to how well prepared we are to meet the health care needs of current large numbers of neurologically and sensorially handicapped patients. As our population continues to age, it is clear these particular conditions will become more prevalent. The study indicates our resources for the proper care of the neuro-sensory patient are frequently inadequate. While large numbers of patients with neuro-sensory conditions are receiving care both in the hospital and outside, diagnostic and therapeutic resources are often absent.

In 1964, there were fifty board certified neurologists serving a population of over eleven million Pennsylvanians. All but fourteen of these specialists were located within the state's five southeastern counties. A total of forty-two certified neuro-surgeons were available, constituting a ratio of one specialist for each 270,858 persons. While board certified ophthalmologists were in greater supply, there are large sections of the state in which ratios of ophthalmologists to population exceed one to seventy thousand population. An acceptable standard of otolaryngologists to population is one per thirty-four thousand. Only the southeastern corner of Pennsylvania meets this standard.

While there were sixty-six thousand hospital discharges with neuro-sensory diagnoses in 1962 in Pennsylvania, the Jefferson-Pennsylvania Health Department study concludes that we must be cautious in assuming that the great majority of these patients is receiving a high level of health care. We must be particularly concerned about the ability of our smaller hospitals to render complete medical and paramedical service. An intensive analysis of hospitals with less than two hundred beds revealed that only one of sixty-two had a full-time certified or board eligible neurologist, neuro-surgeon or physiatrist on its staff. Somewhat better than 10 percent of these institutions had full-time ophthalmologists or otolaryngologists. Only 10 to 20 percent of our large, non-medical school hospitals employ full-time neuro-sensory specialists.

This report, a part of which appears on page 39, goes on to cite the maldistribution and often total absence of hospital out-patient services, insufficient and uncoordinated community programs and the many problems facing the physician in providing good patient care. If we are at all complacent about the availability of health services for neurological and sensory disorders, our thinking may well be challenged as a result of this study.

C. Earl Albrecht, M.D.

C. Earl Albrecht, M.D., professor of preventive medicine at Jefferson Medical College, is also president of the Pennsylvania Health Council. Dr. Albrecht was widely honored for pioneering work done in Alaska. He served as a consultant in American Samoa, where he developed a program for a 165-bed hospital. Dr. Albrecht visited New Zealand, Australia, Malaysia, Thailand, India, Nepal and Lebanon, where conferences were held with Public Health officials working under the United States, AID and WHO (World Health Organization).

Sustained circulatory, respirator
and cerebral stimulation for th

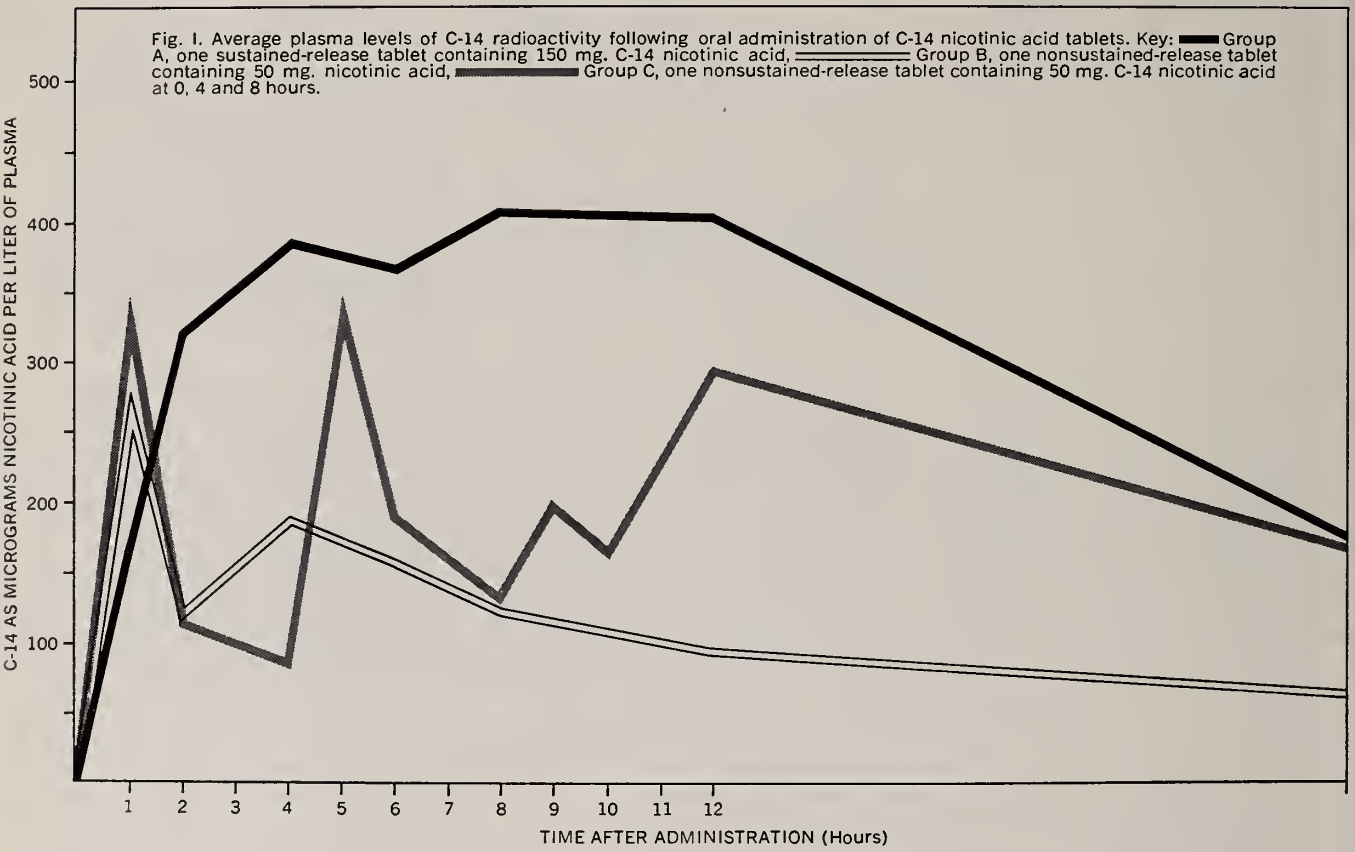

Fig. I. Average plasma levels of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═ Group B, one nonsustained-release tablet containing 50 mg. nicotinic acid, ▬ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

(fewer absent doses by absent-minded patients)

Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated

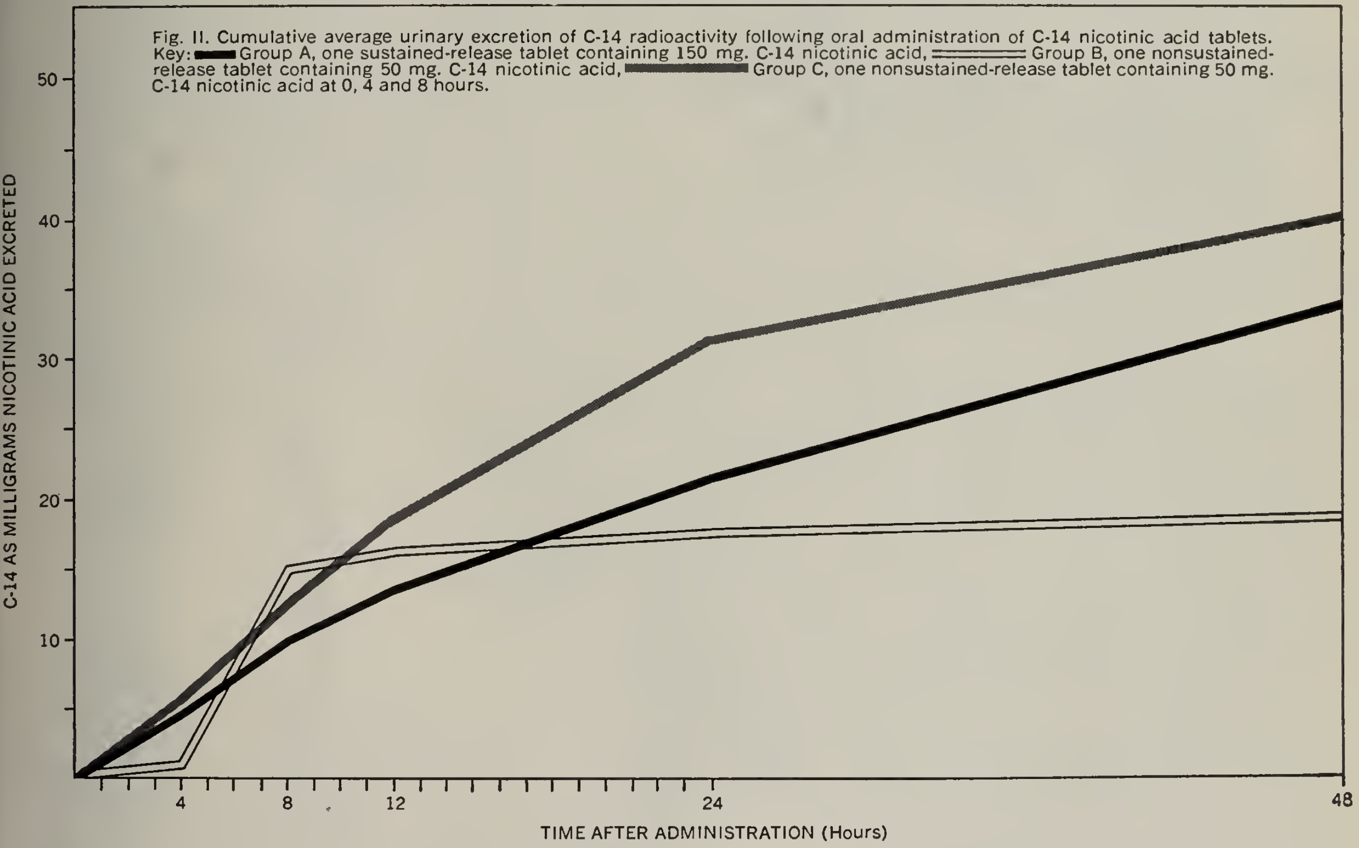
Fig. II. Cumulative average urinary excretion of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═ Group B, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid, ▬ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

C-14 AS MILLIGRAMS NICOTINIC ACID EXCRETED
50
40
30
20
10
4
8
12
24
48
TIME AFTER ADMINISTRATION (Hours)

less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

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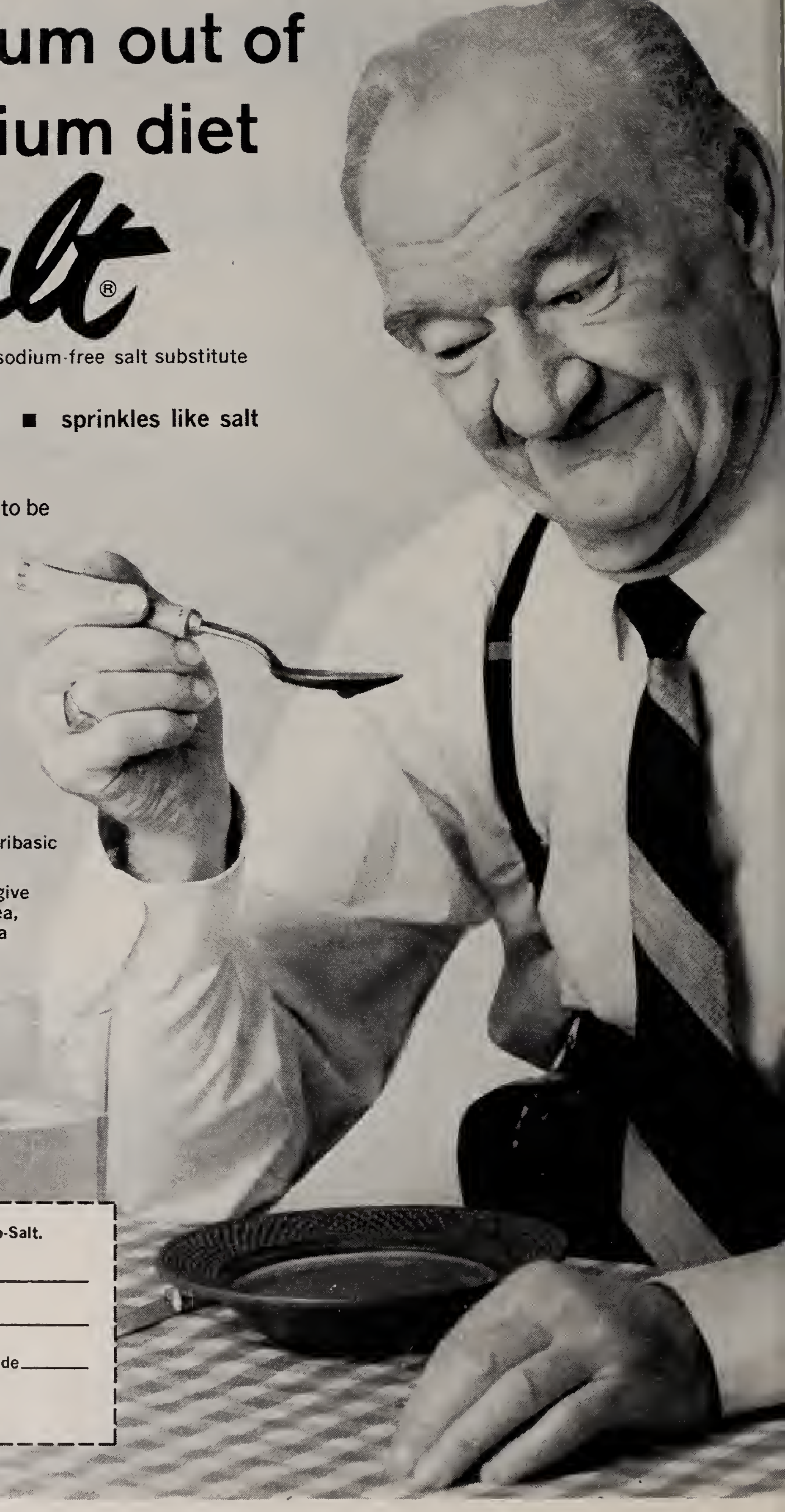
nicotinic acid 150 mg., pentylenetetrazol 300 mg.
Tempotrol® Time Controlled Tablet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Ingredients: choline dihydrogen citrate, potassium chloride, ammonium chloride, tribasic calcium phosphate.

Caution: Excessive sodium depletion may give rise to symptoms such as weakness, nausea, muscle cramps; and in severe cases uremia may supervene. On the appearance of early symptoms, the sodium intake must be liberalized.

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SQUIBB NOTES ON THERAPY

MOLECULAR REMODELING–

laboratory exercise or clinical necessity?

More than twenty-five years have passed since the discovery of the diuretic activity of sulfanilamide started pharmacologists on a succession of molecular remodelings to find the ideal diuretic.

Diuresis–a sought-after clinical effect from an unwanted side effect

It started in 1937 when a clinician reported that the administration of a sulfonamide was sometimes accompanied by an unexplainable side effect–metabolic acidosis.[1] Three years later the side effect was explained. The sulfonamide radical of sulfanilamide inhibited carbonic anhydrase,[2] the enzyme responsible for converting carbon dioxide and water to hydrogen ions and bicarbonate ions.

Later, other investigators showed by dog experiments that metabolic acidosis probably resulted when the inhibition of carbonic anhydrase upset the exchange of hydrogen and sodium ions, causing increased excretion of sodium as the bicarbonate.[3]

It was twelve long years after the first report of the unexplainable side effect (metabolic acidosis) that it was finally shown that large doses of sulfanilamide administered to edematous patients were indeed capable of promoting diuresis.[4] However, the possibility of toxic effects from its prolonged use and its relatively weak diuretic action made it impractical for clinical use as a diuretic.[5]

Because the inhibition of carbonic anhydrase seemed to be the key to effective diuresis, investigators began to look for more potent enzyme inhibitors –in the hopes that they would be more effective diuretics.

The most important of these early compounds, acetazolamide, enjoyed several years of fairly wide clinical use.

Its carbonic anhydrase inhibitory activity was several hundred times greater than that of sulfanilamide.[6] The increase in inhibitory activity, however, increased not only the excretion of sodium and bicarbonate ions, but also the excretion of potassium.[7] And, like its predecessor, acetazolamide precipitated mild acidosis. Its prolonged use could result in hypokalemic acidosis.[7]

The 'thiazides'–an answer to the metabolic acidosis caused by carbonic anhydrase inhibition

Despite the fact that the sulfonamide group appeared to be responsible for carbonic anhydrase inhibition which in turn appeared to be responsible for diuresis, investigators began to synthesize compounds with structural alterations to the sulfonamide group.

The first major breakthrough came with the synthesis of chlorothiazide. Altering the sulfonamide group did indeed alter the ability of chlorothiazide to inhibit carbonic anhydrase–it was only 1/10th as potent as acetazolamide in inhibiting the enzyme.[8] Despite the drop in inhibitory potency, however, chlorothiazide proved to be an effective diuretic–an observation that led to the conclusion that its diuretic action was due to some mechanism other than its action on carbonic anhydrase.[9, 10]

For effective diuresis, chlorothiazide was administered in daily dosages ranging from 250 to 2000 mg.[11] It increased the excretion of sodium and chloride; and, to a lesser extent, potassium and bicarbonate.[11] The excretion of potassium appeared to be maximal at higher dose levels at which, theoretically, the carbonic anhydrase inhibitory effect is more active.[11] Its prolonged use, therefore, could sometimes result in metabolic hypokalemic, hypochloremic alkalosis.[7]

Naturetin–effective diuresis with more favorable electrolyte balance

Other thiazides followed–with improvements being aimed at two particular areas: 1. attempts to increase diuretic action in relation to the milligram potency of the drug, and 2. attempts at a more favorable sodium/potassium ratio in the urine, i.e., to decrease the excretion of potassium while maintaining the excretion of sodium.[12]

One of these, Naturetin, Squibb Bendroflumethiazide, has made advances on both these points. "By adding a 3-benzyl radical to hydroflumethiazide a rather dramatic reduction in dose range is accomplished. With this drug, effective sodium excretion is obtained with doses between 2.5 and 10 mg., which is a 200 to 1 ratio as compared to chlorothiazide..."[13]

Moreover, due probably to its virtual lack of carbonic anhydrase inhibition, Naturetin (bendroflumethiazide) has been shown to cause less potassium and bicarbonate loss and less alteration in urinary pH than either chlorothiazide or hydrochlorothiazide.

Naturetin is outstandingly effective not only in establishing, but also in maintaining, excretion of retained fluid in edematous patients. And its duration of action is sufficiently prolonged to allow a single daily administration in most patients. Naturetin is also an effective antihypertensive agent.

Contraindications: Severe renal impairment; previous hypersensitivity.

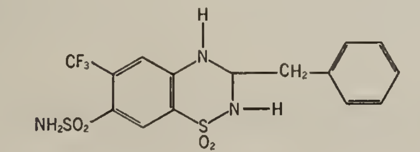
Warning: Ulcerative small bowel lesions have occurred with potassium-containing thiazide preparations or with enteric-coated potassium salts supplementally. Stop medication if abdominal pain, distension, nausea, vomiting, or G.I. bleeding occur.

Precautions: The dosage of ganglionic blocking agents, veratrum, or hydralazine when used concomitantly must be reduced by at least 50% to avoid orthostatic hypotension. Electrolyte disturbances are possible in cirrhotic or digitalized patients.

Side Effects: Bendroflumethiazide may cause increases in serum uric acid, unmask diabetes, increase glycemia and glycosuria in diabetic patients and may cause hypochloremic alkalosis, hypokalemia; cramps, pruritus, paresthesias, and rashes may occur.

Supplied: Naturetin (Squibb Bendroflumethiazide) 5 mg. and 2.5 mg. tablets. Also available Naturetin c̄ K [Squibb Bendroflumethiazide (5 or 2.5 mg.) with Potassium Chloride (500 mg.)]. For full information, see Product Brief.

References: **1.** Southworth, H.: Proc. Soc. Exper. Biol. & Med. *36*:58, 1937. **2.** Mann, T. and Keilin, D.: Nature *146*:164, 1940. **3.** Pitts, R. F., and Alexander, R. S.: Am. J. Physiol. *144*:239, 1945. **4.** Schwartz, W. B.: New England J. Med. *240*:173, 1949. **5.** Friedberg, C. K., in Moyer, J. H., and Fuchs, M.: Edema Mechanisms and Management, Philadelphia, W. B. Saunders Co., 1960, p. 259. **6.** Cumming, J. R.; Tabachnick, E., and Seelig, M., in Moyer, J. H., and Fuchs, M.: op. cit., p. 254. **7.** Werko, L., in Moyer, J. H., and Fuchs, M.: op. cit., p. 188. **8.** Beyer, K. H., Jr., in Moyer, J. H., and Fuchs, M.: op. cit., p. 274. **9.** Maren, T. H., and Wiley, C. E.: J. Pharmacol. & Exper. Therap. *143*:230, 1964. **10.** Earley, L. E., and Orloff, J.: Ann. Rev. Med. *15*:149, 1964. **11.** Fuchs, M., and Mallin, S. R., in Moyer, J. H., and Fuchs, M.: op. cit., p. 276. **12.** Ford, R. V., in Moyer, J. H., and Fuchs, M.: op. cit., p. 290. **13.** cited in Fuchs, M., and Mallin, S. R. (ref. 11): op. cit., p. 283.



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But proud as we are of our role in the development of cortisone and subsequent corticosteroids, we have continued to seek a greater understanding of arthritic disorders and new drugs for their treatment.

One such drug—INDOCIN® (indomethacin), a nonsteroid, anti-inflammatory agent fundamentally different in structure and activity from other drugs in use—was recently made available for the treatment of arthritic conditions. It opens new possibilities for the long-term management of arthritis and inflammatory disease.

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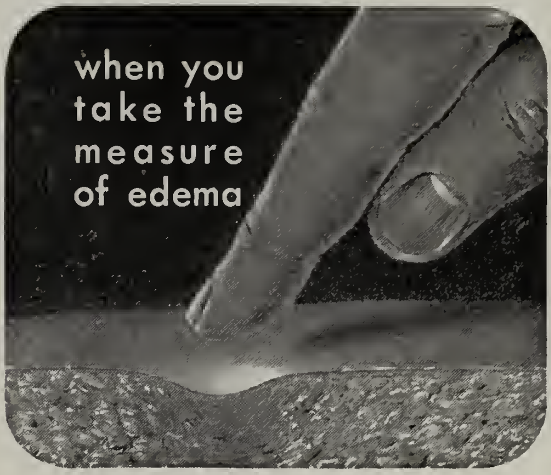
Indications: Chronic and acute rheumatoid arthritis, rheumatoid (ankylosing) spondylitis, degenerative joint disease (osteoarthritis) of the hip, and gout.
Contraindications: Active peptic ulcer, gastritis, regional enteritis, or ulcerative colitis. Safety in pregnancy has not been established. Not recommended for pediatric age groups.
Warning: Patients who experience dizziness, lightheadedness, or feelings of detachment on INDOCIN should be cautioned against operating motor vehicles, machinery, climbing ladders, etc. Use cautiously in patients with psychiatric disturbances, epilepsy, or parkinsonism.
Precautions and Adverse Reactions: Most commonly, headache, dizziness, lightheadedness, G.I. disturbances. The C.N.S. effects are often transient and frequently disappear with continued treatment or reduced dosage. The severity of these effects may occasionally require cessation of therapy. G.I. effects may be minimized by giving the drug with food or with antacids or immediately after meals. Ulceration of the stomach, duodenum, or small intestine has been reported and, in a few instances, severe bleeding with perforation and death. Gastrointestinal bleeding with no obvious ulcer formation has also been noted; INDOCIN should be discontinued if G.I. bleeding occurs. As a result of G.I. bleeding, some patients may manifest anemia, and for this reason periodic hemoglobin determinations are recommended. Rare reports of effects not definitely known to be attributable to INDOCIN include bleeding from the sigmoid colon (either from a diverticulum or without a known previous pathologic condition), perforation of preexisting sigmoid lesions (diverticulum, carcinoma), and hematuria. In other rare cases, a diagnosis of gastritis has been made while the drug was being given. One patient developed ulcerative colitis, and another, regional ileitis, while receiving INDOCIN; when the drug was given to patients with preexisting ulcerative colitis, there was an increase in abdominal pain. Infrequently observed side effects may include drowsiness, tinnitus, mental confusion, depression and other psychic disturbances, blurred vision, stomatitis, pruritus, edema, and hypersensitivity reactions. Slight BUN elevation, usually transient, has been seen in some patients, although the preponderance of evidence indicates that INDOCIN does not adversely affect renal function, even in patients with preexisting renal disease. Nevertheless, renal function should be checked periodically in patients on long-term therapy. Leukopenia has been seen in a few patients. Transient elevations in alkaline phosphatase, cephalin-cholesterol flocculation, and thymol turbidity tests have been observed in some patients and, rarely, elevations of SGOT values; the relationship of these changes to the drug, if any, has not been established. As with any new drug, patients should be followed carefully to detect unusual manifestations of drug sensitivity. Before prescribing or administering, read product circular with package or available on request.



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AQUATAG (Benzthiazide) is a potent, orally active, nonmercurial, diuretic agent. It is effective orally in producing diuresis in edema states, where it is therapeutically comparable to mercurials given parenterally. AQUATAG (Benzthiazide) is mildly antihypertensive in its own right and enhances the action of other antihypertensive drugs when used in combination.

DIURETIC ACTION: Clinically, the oral administration of AQUATAG (benzthiazide) results in diuretic activity within two hours with maximal natriuretic, chloruretic, and diuretic effects occurring during the fourth, fifth and sixth hours. Maintenance of response continues for approximately 12 to 18 hours. Acidosis is an unlikely complication since therapeutic doses of AQUATAG (benzthiazide) do not appreciably increase bicarbonate excretion. Edematous patients receiving 50 mg. of AQUATAG (benzthiazide) daily for five days developed a maximal increase in the rate of sodium excretion on the first day, and maintained this high rate until depletion of excessive body stores of sodium.

In congestive heart-failure patients, AQUATAG (benzthiazide) produced the same weight loss, during a 48-hour treatment period as did a maximally effective dose of hydrochlorothiazide.

DOSAGE: Diuresis, initially 50 to 200 mg.; maintenance 25 to 150 mg., daily. Hypertension 50 to 100 mg. initially, adjusted to 50 mg. t.i.d. or downward to minimal effective dosage level.

WARNINGS: Use with caution in the presence of renal disease as azotemia may be precipitated or increased. In patients with advanced hepatic disease, electrolyte imbalance may result in hepatic coma. Dosage of coadministered antihypertensive agents should be reduced by at least 50%. In cases of suspected electrolyte imbalance, serum electrolyte determinations should be performed and imbalance, if any, corrected. Stenosis or ulcer of small intestine have been reported with coated potassium formulas, and surgery has been required and deaths have occurred. Based on surveys of both United States and foreign physicians, incidence of these lesions is low and a causal relationship in man has not been definitely established. Until further experience has been obtained, the use of the drug in pregnant patients should be weighed against possible hazards to the fetus.

CONTRAINDICATIONS: AQUATAG (benzthiazide) is contraindicated in progressive renal disease or dysfunction including increasing oliguria and azotemia. Continued administration of this drug is contraindicated in patients who show no response to its diuretic or antihypertensive properties. Severe hepatic disease is a relative contraindication. (See "Warnings" above.)

PRECAUTIONS AND SIDE EFFECTS: Electrolyte imbalance with hypokalemia (digitalis toxicity may be precipitated), hypochloremic alkalosis and hyponatremia may occur.

Patients with cirrhosis should be observed for impending hepatic coma and hypokalemia. Other reactions may include blood dyscrasias, hyperuricemia and gout, nausea, jaundice, anorexia, vomiting, diarrhea, dizziness, paresthesia, photosensitivity and headache. Hepatic fetor, tremor, confusion and drowsiness are signs of impending pre coma and coma in patients with cirrhosis. Insulin requirements may be altered in diabetes. AQUATAG (benzthiazide) should be used with caution post-operatively as hypokalemia is not uncommon. Potassium supplementation may be advisable pre- and post-operatively. There have been occasional reports of thrombocytopenia, leukopenia, agranulocytosis, aplastic anemia and precipitation of acute pancreatitis or jaundice.

Before prescribing or administering, read the package insert or file card available on request.

Available as 25 or 50 mg. scored tablets.

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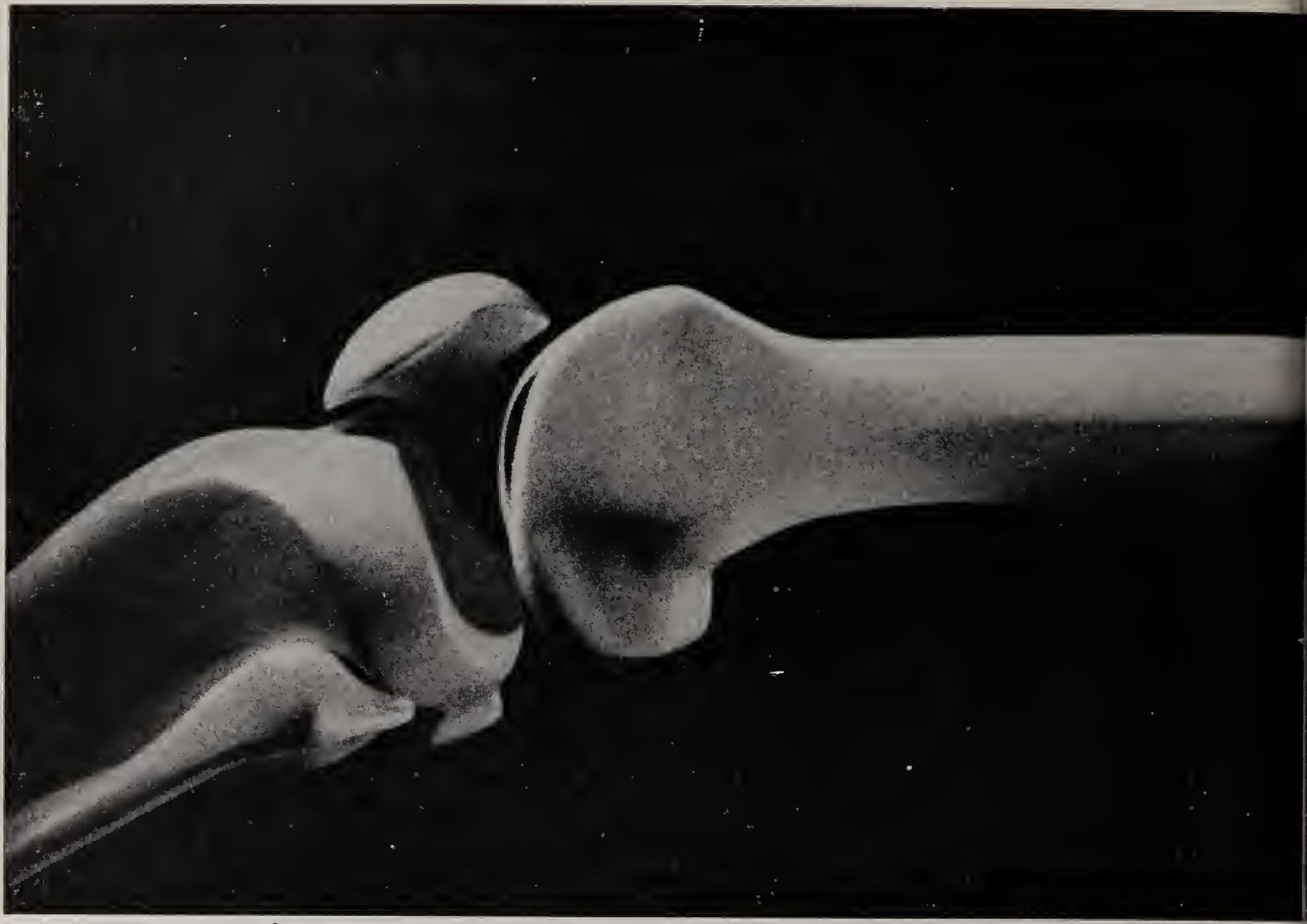

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phenylbutazone, 100 mg.
dried aluminum hydroxide gel, 100 mg.
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homatropine methylbromide, 1.25 mg.

Usually works within 3 to 4 days in osteoarthritis

The trial period need not exceed 1 week. In contrast, the recommended trial period for indomethacin is *at least 1 month.*

That's why it's logical to start therapy with Butazolidin alka—you'll know quickly whether or not it works. And usually, it will.

A large number of investigators have reported major improvement in about 75% of cases. Some patients have gone into remission. Relief of stiffness and pain may be followed quickly by improved function and resolution of other signs of inflammation. And Butazolidin alka is well tolerated, especially since it contains antacids and an antispasmodic to minimize gastric upset.

Contraindications
Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. Because of the increased possibility of toxic reactions, the drug should be used with greater care in the elderly and should not be given when the patient is senile or when other potent chemotherapeutic agents are given concurrently. Large doses of Butazolidin alka are contraindicated in patients with glaucoma.

Warning
If coumarin-type anticoagulants are given simultaneously, the physician should watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Patients receiving such concomitant therapy should be carefully observed for this effect.

Use with caution in the first trimester of pregnancy.

Precautions
Before prescribing, the physician should obtain a detailed history and perform a complete physical and laboratory examination, including a blood count. The patient should be kept under close supervision and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools. Regular blood counts should be made to guard against blood dyscrasias.

Adverse Reactions
The most common adverse reactions are nausea, edema and drug rash. Moderately lowered red cell count may sometimes occur due to hemodilution. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, exfoliative dermatitis, Stevens-Johnson syndrome or a generalized allergic reaction may occur and require withdrawal of medication. Stomatitis, salivary gland enlargement, vertigo or languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia are also possible side effects.

Confusional states, hyperglycemia, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hepatitis, jaundice and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently.

Dosage
The initial daily dosage in adults is 300-600 mg. daily in divided doses. In most instances, 400 mg. daily is sufficient. When improvement occurs, dosage should be decreased to the minimum effective level: this should not exceed 400 mg. daily, and is often achieved with only 100-200 mg. daily.

For complete details, please refer to full prescribing information.
6509-V(B)

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300 mg FILM COATED TABLETS

are made for b.i.d.

Effective in a wide range of everyday infections—respiratory, urinary tract and others—in the young and aged—the acutely or chronically ill—when the offending organisms are tetracycline-sensitive.

Contraindication—History of hypersensitivity to demethylchlortetracycline.

Warning—In renal impairment, usual doses may lead to excessive systemic accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort.

Precautions and Side Effects—Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. Use of demethylchlortetracycline during tooth development (last trimester of pregnancy, neonatal period and early childhood) may cause discoloration of the teeth (yellow-grey-brownish). This effect occurs mostly during long-term use but has also been observed in short treatment courses. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment. Side reactions include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and dermatitis. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Anaphylactoid reactions have been reported.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products.

Capsules: 150 mg; *Tablets:* film coated, 300 mg, 150 mg, and 75 mg of demethylchlortetracycline HCl.

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WELCOME, NEW MEMBERS!

These M.D.'s have joined the State Society in recent months:

BERKS COUNTY:

Thaddeus J. Tomkiewicz, 1205 Chestnut St., Reading 19602.
Donovan L. Donly, 830 N. Second St., Reading 19601.
John N. Rightmyer, 416 Franklin St., Hamburg 19526.
Richard J. Westcott, 110 Rose Court, Shillington 19607.

CHESTER COUNTY:

Richard J. Manner, Wyeth Labs., Box 8299, Philadelphia 19101.

DAUPHIN COUNTY:

James F. Ervin, II, 423 Black Latch Lane, Camp Hill 17011.
Thomas W. Georges, Jr., Health and Welfare Bldg., Room 328, Harrisburg 17120.
Daniel M. Levin, 1919 N. Front St., Harrisburg 17101.

DELAWARE COUNTY:

Donald B. Stein, Jr., 3000 Robin Lane, Havertown 19083.

LACKAWANNA COUNTY:

Francis P. Colizzo, Jr., 5322 Cedar Ave., Philadelphia 19143.

LAWRENCE COUNTY:

Prisco T. Evangelista, 329 Fourth St., Ellwood City 16117.

LEBANON COUNTY:

William A. Shaver, 618 Cornwall Road., Lebanon 17042.

MONROE COUNTY:

Francis A. Lovecchio, 175 E. Brown St., East Stroudsburg 18301.
Anne E. Shafer, 731 Sarah St., Stroudsburg 18360.

MONTGOMERY COUNTY:

James E. Goddard, Jr., 1311 Hunter Dr., Lancaster 17601.
Roy G. Klotz, Jr., Abington Memorial Hospital, Abington 19001.
Robert D. Strauss, Ambler Medical Associates, 500 Willow Ave., Ambler 19002.

NORTHAMPTON COUNTY:

Franklin A. Paul, Health Center, Lehigh University, Bethlehem 18015.
Anthony M. Pirrello, 3051 Shakespeare Road, Bethlehem 18017.
Leslie E. Soper, 746 Redfern Lane, Bethlehem 18017.
Charles E. Kovar, 123 S. 22nd St., Easton 18042.

PHILADELPHIA COUNTY:

Anne K. Chan, 1601 Spring Garden Street, Philadelphia 19130.
Casimir Czarnecki, 9412 Academy Road, Philadelphia 19114.
Dorothy G. Czarnecki, 9412 Academy Road, Philadelphia 19114.
Alan S. Dana, Jr., 7715 Castor Ave., Philadelphia 19152.
Julius Ellison, 6810 Castor Ave., Philadelphia 19149.
Norman F. Fisher, 1700 Erlen Road, Melrose Park, Philadelphia 19126.
William B. Garfinkle, 1166 E. Phil-Ellena St., Philadelphia 19150.
Ronald J. Herman, 116 Cornell Ave., Folsom 19154.
Jerome H. Horowitz, 12301 Medford Road, Philadelphia 10154.
Stanley C. Huslin, 3137 Winchester Ave., Philadelphia 19136.
Abram S. Kaplan, 1937 A. Mather Way, Elkins Park 19117.
Mark S. Kauffman, 120 E. 64th Ave., Philadelphia 19120.
Illona R. Ring, 1001 City Ave., Philadelphia 19151.
James A. Schaller, Park Terrace Apt. 340-B, 8040 Rowland Ave., Philadelphia 19136.
Donald J. Sherman, 1119 E. Sharpnack St., Philadelphia 19150.
Jerome L. Silverman, University of Pennsylvania, 711 Maloney Bldg., Philadelphia 19104.
Oscar R. Weiner, Park Towne Place, W. 108, Philadelphia 19130.
Saul Wider, 359 Spring Valley Lane, Springfield 19064.
Cecilia M. Curran, 5 South Oak Dr., Beaver Falls 15010.
Raymond L. Milhous, 404 W. State St., Media 19063.
Jerrold G. Grofe, 2200 Franklin Pky. W, 107, Philadelphia 19130.
Enoch G. Klimas, 2536 E. Allegheny Ave., Philadelphia 19134.
Diane E. Pearson, Park Drive Manor Apt. 108-B, Philadelphia 19144.
Joseph H. Simon, Academy Rd. and Morrell Ave., Philadelphia 19114.
Jack I. Smith, Temple University, Philadelphia 19140.

PCMS Nutrition Workshop

Faculty members for the Eleventh Annual Conference on Nutritional and Metabolic Considerations in Disease November 2, sponsored by the Philadelphia County Medical Society, will be drawn from the medical schools of Philadelphia. Guest participants will be Rachmiel Levine, M.D., New York Medical College, and William H. Sebrell, Jr., M.D., Columbia University School of Public Health and Administrative Medicine.

Subjects to be considered are: Nutrition in Cardiovascular Disease, Gastrointestinal and Metabolic Diseases, and Nutrition in Surgery and Convalescence.

Conference chairmen are again Michael G. Wohl, M.D., chairman, PCMS Committee on Nutrition and Metabolism, and Bernard B. Zamostien, M.D., president, Philadelphia Academy of General Practice.

The workshop will be conducted at PCMS headquarters, 2100 Spring Garden Street.

American College of Surgeons Southeastern Pennsylvania Chapter

ANNUAL MEETING

Hotel Traylor, Allentown, Pa., Thursday, November 17th, 1966

General Theme:
Gastrointestinal Surgery

Speakers:
- Lester Dragstedt, M.D., University of Florida
- Walter Palmer, M.D., University of Chicago
- Isidor Ravdin, M.D., University of Pennsylvania
- Lucian Smith, M.D., Mayo Clinic

A separate meeting will be in the subspecialty of Obstetrics and Gynecology and the subject of "Infertility" will be discussed.

vignettes of angina pectoris —
no. 1 in a series:

angina and the surgeon

John Hunter —
British surgeon (1728-1793)

angina of anger

"My life is in the hands of any rascal who chooses to annoy and tease me."[1] So said the great British surgeon and anatomist, John Hunter, realizing that he could not control the anger which precipitated frequent and severe attacks of angina pectoris. According to Mettler: "His statement was no exaggeration. On October 16, 1793, he attended a meeting of the St. George's hospital staff, and, while defending the interests of several students, he was contradicted and thoroughly antagonized. The pains of angina commenced, he started toward another room, gained it, and fell dying into the arms of a physician."[2]

Why Edward Jenner withheld his paper on angina In 1777, at an earlier stage of the condition, Hunter's angina alarmed a favorite pupil, Edward Jenner, who wrote to Dr. Heberden that he feared his teacher was "affected with symptoms of the Angina Pectoris."[3] So concerned was Jenner about his former teacher's emotion-related condition that he deliberately cancelled publication of a paper on angina pectoris, fearing that Hunter would read it, and have "his fears excited by its truly formidable nature."[4]

Severity of angina described Hunter's brother-in-law, Dr. Everard Home, who witnessed his death and performed an autopsy, gave this account of the later stage of the condition:

"...the pain became excruciating at the apex of the heart; the throa was so sore as not to allow of an attempt to swallow anything and the left arm could not bear to be touched....

"The affections above described were, in the beginning, readily brought on by exercise... but they at last seized him when lying in bed, and in his sleep...."[5]

18th century ancestor of the modern coronary candidate Surgeon, anatomist, pathologist, physiologist, geologist, and teache Hunter had a passion for research which led him to disregard his practice, his health and even the

w. When the Irish giant O'Brien
arned that Hunter desired his
eleton for a museum, he willed
at his body be sunk at sea in a
ad coffin. But Hunter was not to
e denied. According to Major, he
.. bribed the watchers and finally
otained the body at a cost of 500
ounds although he had to borrow
e money to pay the men."[3]
1767, he experimentally inocu-
ted himself with gonorrhea and
philis, treated himself with
ercury for three years, and was
pparently cured.[5] Hunter had
elings of inadequacy about his
lucation and speaking ability,
ut this did not prevent him from
eing hard driving and abrupt
ith his colleagues. His competi-
veness with his physician older
rother was also well known, and
nded in complete estrangement
etween the two men.[2,3] Today, the
ersonality traits seen in John
lunter are recognized to be impor-
ant predisposing factors in the devel-
pment of coronary artery disease—
ften manifested as angina pectoris.
ccording to Friedman and Rosen-
an,[6] in a group of men whose be-
avior was characterized by intense
mbition and competitive drive,
greater than average incidence
f angina pectoris was among those
bnormal conditions noted.

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in the modern management of angina pectoris

Peritrate® SA

Sustained Action (pentaerythritol tetranitrate) 80 mg.

Each double-layer, biconvex, dark green/light green tablet of Peritrate SA Sustained Action contains:
pentaerythritol tetranitrate ....80 mg.
(20 mg. in immediate release layer and 60 mg. in sustained release base)

Peritrate (pentaerythritol tetranitrate) is a nitric acid ester of a tetrahydric alcohol (pentaerythritol).

Actions: The exact cause of angina pectoris (that is, the pain associated with coronary artery disease) remains obscure, despite the numerous and often conflicting hypotheses concerning its pathophysiology. Therapy at the present time, therefore, remains essentially empiric. Customarily, clinical improvement has been measured by: reduction in (1) number, intensity and duration of angina pectoris attacks and (2) necessity for glyceryl trinitrate intake for prevention or relief of anginal attacks.

Peritrate SA Sustained Action (pentaerythritol tetranitrate) 80 mg. has been reported in clinical usage to reduce in number and severity the incidence of angina pectoris attacks, with concomitant reduction in glyceryl trinitrate intake.

In the evaluation of Peritrate (pentaerythritol tetranitrate) and Peritrate SA Sustained Action (pentaerythritol tetranitrate) 80 mg. in angina pectoris, clinical improvement has been customarily measured subjectively by reduction in number and severity of attacks and necessity for glyceryl trinitrate intake for prevention or abortion of anginal attacks. Individual patterns of angina pectoris differ widely as does the symptomatic response to antianginal agents such as pentaerythritol tetranitrate. The published literature contains both favorable and unfavorable clinical reports. In conjunction with total management of the patient with angina pectoris, Peritrate (pentaerythritol tetranitrate) and Peritrate SA Sustained Action (pentaerythritol tetranitrate) 80 mg. have been accepted as safe for prolonged administration and widely regarded as useful.

Animal pharmacology: In a series of carefully designed studies in pigs, Peritrate (pentaerythritol tetranitrate) was administered for 48 hours before an artificially induced occlusion of a major artery and for seven days thereafter. The pigs were sacrificed at various intervals for periods up to six weeks. The result showed a significantly larger number of survivors in the drug-treated group. Damage to myocardial tissue in the drug-treated survivors was less extensive than in the untreated group. Pigs rather than dogs were used because their coronary artery distribution more closely resembles that of human beings. Studies in dogs subject to oligemic shock through progressive bleeding have demonstrated that Peritrate (pentaerythritol tetranitrate) is vasoactive at the postarteriolar level, producing increased blood flow and better tissue perfusion. These animal experiments cannot be translated to human behavior

Indications: Peritrate SA Sustained Action (pentaerythritol tetranitrate) 80 mg. is indicated for the relief of angina pectoris (pain associated with coronary artery disease). It is not intended to abort the acute anginal episode but is widely regarded as useful in the prophylactic treatment of angina pectoris.

Contraindications: Peritrate SA Sustained Action (pentaerythritol tetranitrate) 80 mg. is contraindicated in patients who have a history of sensitivity to the drug.

Warning: Data supporting the use of Peritrate (pentaerythritol tetranitrate) during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety.

Precautions: Should be used with caution in patients who have glaucoma.

Adverse reactions: Side effects reported to date have been predominantly related to headache (which may require discontinuation of medication) and gastrointestinal distress which are usually transient with continuation of medication.

Dosage: Peritrate SA Sustained Action (pentaerythritol tetranitrate) 80 mg., 1 tablet immediately on arising and 1 tablet 12 hours later (on an empty stomach).

Additional dosage forms
Peritrate (pentaerythritol tetranitrate)—10 mg. and 20 mg. tablets with or without phenobarbital.

Peritrate with Phenobarbital SA Sustained Action—80 mg. pentaerythritol tetranitrate and 45 mg. phenobarbital.

(**Warning:** Tablets containing phenobarbital may be habit forming.)

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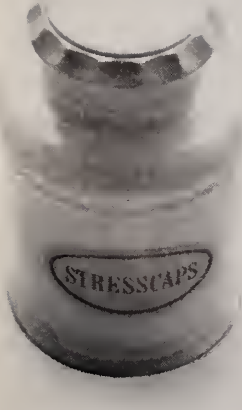

following infection

B and C vitamins are therapy: STRESSCAPS B and C vitamins in therapeutic amounts...help the body mobilize defenses during convalescence...aid response to primary therapy. The patient with a severe infection, and many others undergoing physiologic stress, may benefit from STRESSCAPS capsules.

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Vitamin B_6 (Pyridoxine HCl)	2 mg
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Vitamin C (Ascorbic Acid)	300 mg
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Calcium Pantothenate	20 mg

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Address of the President — William B. West, M.D.

Presentation before the House of Delegates at the 117th Annual Session of the Pennsylvania Medical Society in the Penn-Sheraton Hotel, Pittsburgh, on Sunday, October 9, 1966 at 4 p.m.

Confronting every president of the Pennsylvania Medical Society in the closing hours of his office is a series of choices most difficult to make. Two years of deep involvement in the affairs of the State Society, first as president-elect and then as president, result in a mixture of impulses that make even more difficult the decisions that are complicated at best.

There is an impulse to say, "Thank you for the honor you have given me," and then return to my neglected practice amid the well wishes of those who disagree with my proposals and are grateful that I didn't make any.

There is another impulse to recount for you my attempts at stewardship—and to do it briefly, so that there again might be applause for my brevity if not for my actions.

There is another impulse to criticize but to balance it with praise so that I might be regarded as a moderate man. The difficulty with the impulses I have cited so far is that they reflect as their greatest concern a selfish factor—the very human quality of wanting applause rather than argument, of wanting to be considered as a nice guy rather than a thorn.

The one rather complicated impulse that led to the course I will follow is one that I have not listed, one that will not endear me to any but a very few, one that will irritate rather than soothe. I'm going to criticize and do it at a time when there already is an overabundance of guns blazing away at us. In my criticism of the profession, there is, of necessity, criticism of Bill West but I hope that I always will be a part of this profession.

Medical doctors are gray shapes moving in a gray world. All too often, the most vivid splashes of color in the world of medicine are painted to highlight our faults. Faults we have—not so many as our critics would have us to believe, and not so few as we ourselves would like to believe. We *are* human.

We worry more about our reputation than we do our character. I'm not one of those who believes that the former automatically will take care of itself if we give the latter its proper due. But we certainly cannot act to improve our reputation without acting to improve our character.

We lean back on the old truth that it is the few medical doctors who have detracted from the reputation of the profession. To combat the detractions worked by the few, we have attempted to point to the character of the majority and in so doing we are fostering a situation similar to our own Viet Nam war where we may achieve a stalemate but never really win. To win, we must correct the causes of criticism wherever and whenever it is in our power to do so as well as point to the accomplishments of the many. To correct decisively the improper actions of the very few requires a mechanism that is dangerous to achieve and implement, but it is even more dangerous not to achieve and implement it. If we do not discipline effectively the very few physicians whose motives plainly are not in their patients' interest, we invite the intervention of government.

We as medical societies do take disciplinary action but not frequently enough and in some instances we as medical societies do not have a weapon adequate to force adherence to ethical principles. We need such a weapon, even if it means revising the Medical Practice Act. In making such a recommendation, I'm well aware of the attendant dangers. We cannot instill ethics by regulation and to regulate to correct the few is to inflict the regulations on the many who do not need them. Such is one of the truths of human existence. Laws are not written to direct the actions of the majority; they are written to provide a mechanism to correct the actions of the very few. A more stringent Medical Practice Act would in no way affect those whose personal and professional codes already are above reproach and of such is the house of medicine constructed. A more stringent Medical Practice Act would be a danger to the unethical and so it should.

To this end, *I recommend that conversations already underway between a body of the Pennsylvania Medical Society and the State Board of Medical Education and Licensure be expended to include such revisions in the Medical Practice Act as will make it possible to discipline more effectively any deliberate deviations from the high moral and ethical code to which the overwhelming majority of physicians adhere, and that such recommendations be presented for the consideration and action of this House at its next annual session.*

In having made this as my first recommendation, I do not want it to be construed as an indication that I believe this is the most important thing facing medicine. It is one of a number of important things that are extremely difficult to establish in an order agreeable to most. I list it first because by the time I deliver this speech, or most certainly a short time thereafter, a great hue and cry will have been raised as the result of a book called "The Doctors." In it, it appears that the author feels that physicians are disciples of the devil and distortions, exaggerations, selectivity in presenting so-called facts and perhaps even worse are used in an attack on the profession that is bound to bring joy to the hearts of our critics. It will not surprise me if the book ultimately is used as an excuse for a government investigation into medical decisions. It appears to fit all too well into what I believe is a grand scheme to destroy the practice of medicine as we know it. I believe that we can withstand any such storm far better if we act with greater vigor to correct the few remaining causes of any justifiable criticism. I repeat, they are few but as long as we allow any to exist, we are fighting only half the battle. George Washington said that it is better to be alone than in bad company, and I echo his thought and its application in a variety of circumstances.

Acting to do something about the few who are our own worst enemies, we will have a more solid support from which to launch a series of reforms that I believe are essential in other areas. I mentioned some of these areas when I spoke to you last year. We have made some progress, but much remains to be done. I seem to have about a 500 batting average on the eight specific recommendations I made to you last year. In a year, I haven't made an about-face on any of them but I have made some modifications. One of the modifications in my thinking occurred in connection with a recommendation that is within the power and capability of the Pennsylvania Medical Society. That modification has resulted in my hearty endorsement of current efforts of the Educational and Scientific Trust of the Pennsylvania Medical Society and of the State Society Committee on Aid to Education which are designing a plan that should help us to do something about the sometimes bad distribution of medical services in Pennsylvania. They are seeking to establish a plan whereby the outstanding debts of an intern or resident would be refinanced under a single loan from the Trust and whereby a significant portion of the loan would be forgiven for every year that the debtor practices in a place of the Pennsylvania Medical Society's choosing—a place that has demonstrated an acute need for medical service. I'm not being entirely unselfish in my support of such an idea; I recognize that an unmet medical service need will be met by government if we don't do it ourselves. Is the cost prohibitive? I think not. I believe that such an activity would be much more laudable than the awarding of our current full tuition medical education scholarships and again, to the credit of the Trust and of the Committee on Aid to Education, I understand that they are considering a recommendation that funds now used for our medical education scholarships be used to finance a conditional loan forgiveness program.

I recommend that you support the directions being studied by the Committee on Aid to Education and by the Educational and Scientific Trust.

Family Planning

Last year, I recommended renewed efforts to have the Department of Public Welfare make available to citizens under its care, and upon the request of its citizens, appropriate methods of family planning. I'm heartened by the great accomplishments in this area, accomplishments that are largely due to the energies of former Secretary of Welfare Arlin Adams and of his successor, Secretary Max Rosen. The family planning mechanism is a voluntary one, and it is important that it be so. It is even more important that those who support the concept make their support known so that the decision makers have the best possible measure of public attitudes.

Title XIX

I am also heartened by recent examples of closer cooperation between the Pennsylvania Medical Society and the Department of Public Welfare and I hope that such cooperation not only continues, but also expands. There are many pitfalls for the public and the profession in Title XIX—the medical assistance program. These are pitfalls that I hope can be avoided by a give-and-take in the public interest. *We need to take a long, hard look at Title XIX—a look that may bring about some revisions in our attitudes toward it. With the closer liaison we now have with the Department of Public Welfare, I hope that we can make clear that the average physician is becoming somewhat weary of being expected to subsidize the medical aspects of various welfare programs by furnishing his services at below his usual fees.* Current practices have resulted in the physician being caught in a cross fire of criticism. I would hope that any medical services provided under welfare programs would carry price tags that reflect their true cost and that subnormal reimbursement of physicians be brought up to standards so that the physician is not forced to subsidize a significant portion of the cost of such programs. In some areas of Pennsylvania, almost three out of five residents qualify for some help under the state's implementation of Title XIX. Again, with substandard reimbursement this increases the unfairness to physicians in such geographic areas. It undoubtedly deters some physicians from locating in such areas and thus welfare regulations are a factor that undoubtedly contributes to some of the poor distribution of physicians. *At the same time, I think we need to look more closely at the Title XIX eligibility standards.* A family of six with an annual income of $5,500 might qualify for help as long as they do not have medical and hospital insurance. This undoubtedly illustrates my primary complaint about many welfare programs—that they encourage a lack of prudence and tend to perpetuate the conditions that make such programs necessary.

It is apparent time and time again to those of us who treat patients under welfare medical services that the patient is under the impression that we are reimbursed our normal fees. It is high time that the patient understood that which is provided by tax dollars and that which is subsidized by the physician. To this end, so that the patient has a comparison, *I recommend that we support a method that allows the physician to bill the patient directly under all circumstances—that we reaffirm our right to avoid the interposing of government between physician and patient.*

Some of these things in the welfare area cannot be accomplished in quiet conversation. The final determination rests in the hands of our elected representatives. By now, those of you with whom I have talked on a number of occasions must regard me as somewhat of a broken record. We can't let being physicians stand in the way of our being complete citizens. You may be tired of hearing me say it, but I say it again: You must become active politically. You cannot combat political pressures by being an excellent physician. Political pressures are overcome only by greater political counterpressures. The obligation is not only one to our profession and to ourselves; to an even greater degree, the obligation is to our fellow citizens. We cannot practice medicine in a world of our own. The world is much, much bigger than that and we have to take our responsibility in shaping the total world a great deal more seriously than we have in the past. Medicare is law because we and others like us failed to act decisively enough soon enough. Again, I'm afraid we are reacting when we should be acting. The more the federal government intervenes in health care, the greater is the need for more physicians to take an active part in politics. However, if we react to government action, we are too late. To be politically active without the proper know-how may on occasion be even worse than sitting on our hands. What elected representatives do we support? Which ones should we support? A Congressman friend once reiterated an old rule of thumb—that only about nine percent of a Congressman's constituents know his voting record. On what basis, then, do voters make their choice? Because of a winning smile, or curly hair, or a pleasing manner?

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Smith Kline & French Laboratories, Philadelphia

A year ago when I talked to you, I expressed the belief that new legislation to expand the Medicare Act would be in various stages of preparation before the ink was dry on the Medicare Law. There are many indications today that the President is planning recommendations for drastic expansion of the Medicare Law and other federal intervention in the health care field. If my information is correct, President Johnson will be proposing that medical practice be organized to provide the consumer with the most efficient form of health care, and I emphasize his concept of efficient. He apparently considers as one of the most serious problems the decline in the number of family physicians—in other words, the availability of medical services. If true, it is an expression of a fear which I have expressed for a number of years—a fear that unless we more actively meet medical care needs in certain geographic areas, government will step in.

The President reportedly is seeking methods to make regional health facility planning mandatory throughout the country. Again, it is a case of government stepping into an area where we have not done all that should be done to establish regional planning groups on a voluntary basis.

The President undoubtedly will praise the Medicare Law but say that it is necessary to reexamine some of its details to consider expanding the law to cover the deductible and co-insurance factors that now exist. Of even greater importance is the probability that the administration will attempt to add preventive care in addition to therapeutic and restorative care. Subsequent steps become even more obvious—lower the age bit by bit; establish socialized medicine in its entirety.

Political Action

Being good physicians won't stop the socialization of medicine. The only preventive is political action. Please do not assume that my interpretation of being politically active is voting a straight ticket. I suggest we choose our elected officials on the basis of their voting records and their implementation of their philosophy, regardless of their party affiliation. Whatever you do, for the future of the world and of the profession, don't give up the fight as being lost. If you believe that socialism is inevitable, I ask you to reexamine your reasoning. Make sure it isn't the same type of reasoning that has resulted in some clergymen begetting and advancing the "God is dead" concept. In this gray world that seems to become darker every day, it becomes essential for us as citizens and as members of the medical profession to maintain a sane, sensible, level-headed approach to the problems that beset mankind.

At times I have been concerned about our conference table participation with segments of the federal government in the implementation of the Medicare Law. However, it certainly does no good to confer only with our friends. I'm concerned only that we do not vacillate or capitulate under the guise of diplomacy.

In our responsibility to keep a close watch on all of the factors that affect everyone's lives and our responsibility to act to prevent those things which our hearts and minds tell us are liabilities, we need to look next door as well as over the hills and fields and federal power dams to Washington. The President has ordered an investigation into health care costs. He did this at the same time that he was supporting the minimum wage bill which, among other things, covers one and a half million hospital workers. I'm not saying that hospital workers don't deserve pay that is comparable to that received by similar workers using similar skills. I am saying that it is incongruous to implement actions that increase health care costs and then call for an investigation of health care costs. The next-door aspect of this concern is one that should mandate us to make sure that any increases in the medical care portion of the total health care costs are in keeping with the increased cost of providing medical services. It costs more to operate an office, the equipment necessary to practice optimum medicine has increased in cost and has become more sophisticated and thus even more costly, inflation has taken its toll. It is understandable that there should occur moderate increases in medical care costs. If there are, as some have charged, those among us who are attempting to profit financially by taking advantage of the "Medicare establishment," we have a responsibility to do what we can to stop it. We should act just as strongly and decisively in this as we would act against an expansion of Medicare Law intervention. We also have a responsibility to make sure that all providers of services under the Medicare Law receive no more than a proper reimbursement and a responsibility to keep a sharp lookout for violations of the intent of the law on the part of any intermediaries. Again, by first looking to our own house, we will be in a better position to look at the houses of others in the health field.

Before concluding my comments on the Medicare Law, I suggest that you take with a grain of salt some of the more recently published statistics about physician practices under the Medicare Law. There are those who have claimed that about 60 percent of patients covered under Part B are not being billed directly by the physician and that the physician is accepting the assignment. Despite such figures, it is my impression that most physicians are not accepting assignments and are continuing to bill their patients directly.

DR. WEST

In another area about which I am very concerned, I recognize that there is in existence a mechanism for putting welfare recipients to work so that assistance payments are pay for services given and not a dole. Although such a mechanism exists, I feel that it is not implemented to the extent to which it should be. In this area, I can speak from personal experience in saying that I know many public assistance recipients capable of working who are not put to work. I repeat that I feel their compensation should be in keeping with the work they perform. The social atmosphere, the emotional outlook, the state of mental health depends on the individual's sense of participation in and contribution to the moving of the machinery of life. To perpetuate drones with handouts is to do a grave injustice to both the recipients of the handouts and the taxpayers who support them. In so say-

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*Schiller, I. W., and Lowell, F. C.: New England J. Med. 261:478, 1959.

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ing, I repeat the thoughts I expressed to you a year ago.

I also repeat my recommendation about support for the establishment of the medical examiner system in Pennsylvania. The Constitutional changes needed to establish the medical examiner system are so clearly indicated by a comparison with our archaic coroner system as to cause me to question the motives of those who fail to bring those changes about. I cannot help but feel that any lack of action is prompted by political considerations rather than the ultimate public good.

Quackery

After devoting a significant portion of my talk to suggestions on how to prevent governmental intervention in the affairs of man, I now turn to an area where I think such intervention is needed. The area to which I refer is quackery—those cultists and outright charlatans who are allowed to exist on the fringes of health care despite the fact that they hold out false hopes in exchange for hard dollars garnered from those who can least afford to spend them. It may be true that a small part of our total population opposes the mainstream of proven findings—will always more readily accept the promise of a cure held out by those whose practices are not accepted by the scientific community. We will never be able to educate such a segment of our population away from the pursuit of the false hopes of health cures. Undoubtedly, the only recourse is legislation to impose greater penalties on those who deliberately deceive. I have not yet heard the results of a Quackery Congress held in Chicago last week, but I would hope that it results in proposals for more stringent federal regulation of those who knowingly or unknowingly are quacks. To this end, additional state legislation might be appropriate and ***I recommend that the Council on Governmental Relations of the Pennsylvania Medical Society give serious consideration to coming up with concrete proposals for state legislation to control quackery.***

In returning to our own house for a moment, I have an increased concern about the decreasing number of family physicians and the increase in the number of specialists. We all to often find specialists who belittle the capabilities of the general practitioner and help to create a situation where their own patients are expected to make their own preliminary diagnosis so that they can select the proper specialist. The scientific information explosion requires that specialization increase but it does not require specialists to ignore their basic training as physicians. Specialization is not synonymous with impersonality. Although the tools of medicine are bound to become more complicated, the development will be attended by an increasing need for the personal touch in the practice of medicine. Understanding words often are better cures than antibiotics but the words cannot be understanding if we know almost nothing about the patients who visit us. Again, let us be more concerned about character than we are about reputation.

Five years is not a very long time, but there is no organization or business in this entire nation that dares to operate in 1966 the way it operated in 1959 without inviting its own decline. We are in a world where the concept that the poor are always with us is passe. We're going to eliminate poverty itself. We're talking of a guaranteed annual income for everyone. There are implications for all of us in the changes that are sweeping across the world. We're going to have guns and butter—even if it kills the cows. The rules have changed. And I'm afraid that we have not changed our rules to keep pace with the upheaval around us. By keeping pace, I do not propose that we run to catch up with whatever happens to be the mainstream of national thought at the moment. I do propose that we recognize the direction in which society is moving and act accordingly in a way that we believe will benefit society and the practice of medicine. Proposals for how this should be done I leave to those with greater insight and foresight than I possess. I simply ask that in the consideration of changes in our policies as a State Society and in our attitudes as physicians, we show an awareness of the changes that are taking place.

In this respect, I feel that the Pennsylvania Medical Society sometimes has failed miserably in attempting to meet that portion of its role that is visionary, but almost without exception, those failures have been due to the lack of support from the members of this Society. We usually are unwilling to act until we are forced into a position where we must react and every time this happens we slide back one more step in what is becoming an ever more difficult climb toward the summit of bold and imaginative action. If we do not seize the initiative soon, we will become so mired in reaction as to be unable to act.

The actions of our own Committee on Objectives during the past year are examples of the initiative of which I speak. The Committee's work is to be commended, and in singling them out for praise, I do not intend a slight to other bodies of the State Society. Without exception, the committees, councils and commissions of our State Society have functioned in a way that makes me most proud to be an officer.

Of equal importance has been the mass of work accomplished by a truly dedicated headquarters staff. There is an inclination to single out those whose contributions are better known to me, but in so doing I may fail to recognize the lauditory work of others simply because it has not occurred in an area with which I am best acquainted. To every member of the staff goes my heartfelt thanks.

You have a series of decisions to make at this annual session. I wish I could offer you a complete blueprint for action instead of a few scattered proposals. We need a blueprint where none exists. Very simply, I plead with you at this annual session to take those steps which you earnestly believe are proper ones to achieve those goals designed to win the health and hearts and minds of men.

MEDICAL SOCIETY NEWS

House of Delegates – Action Highlites

One Hundred Seventeenth Annual Session
Pittsburgh, Pennsylvania, October 9-13, 1966

Proceedings of the House of Delegates will be published in the December, 1966 issue of Pennsylvania Medicine.

Election of Officers:

President-elect
John H. Harris, Sr., M.D., Harrisburg

1st Vice-President
Charles K. Rose, Jr., M.D., Allentown

2nd Vice-President
Orlo G. McCoy, M.D., Canton

3rd Vice-President
F. Gregg Ney, M.D., Cochranton

4th Vice-President
Charles A. Bikle, M.D., Chambersburg

Secretary
Allen W. Cowley, M.D., Harrisburg

Speaker
Russell B. Roth, M.D., Erie

Vice-Speaker
William Y. Rial, M.D., Swarthmore

Trustee, Second District
William A. Limberger, M.D., West Chester

Trustee, Fourth District
George A. Rowland, M.D., Millville

Trustee, Eighth District
James A. Biggins, M.D., Sharpsville

Trustee, Eleventh District
D. George Bloom, M.D., Johnstown

Delegates to AMA (term expiring December 31, 1968)
John S. Donaldson, Jr., M.D., Pittsburgh
Gilson C. Engel, M.D., Philadelphia
M. Louise C. Gloeckner, M.D., Conshohocken
Park M. Horton, M.D., New Milford
William A. Limberger, M.D., West Chester
William B. West, M.D., Huntingdon

Alternates to AMA (term expiring December 31, 1968)
A. Reynolds Crane, M.D., Philadelphia
Raymond C. Grandon, M.D., Harrisburg
John B. Lovette, M.D., Johnstown
George A. Rowland, M.D., Millville
Leo C. Eddinger, M.D., Allentown
Malcolm W. Miller, M.D., Philadelphia

Member, Committee to Nominate Delegates and Alternates to AMA (3-year term)
John B. Montgomery, M.D., Philadelphia

Committee on Convention Program (3-year term)
Jerome Chamovitz, M.D., Sewickley
John H. Killough, M.D., Philadelphia

Committee on Convention Program (1-year term)
James A. Collins, Jr., M.D., Danville

Judicial Council (5-year term)
Lewis T. Buckman, M.D., Wilkes-Barre

District Censors
One district censor was elected from each of the sixty component county medical societies. Complete listing appears in the Official Reports Booklet.

■ Supported current efforts to revise the Medical Practice Act to provide stronger disciplinary teeth.

The House referred to the special committee of the Board a recommendation from the address of Dr. West which called for revisions in the Act to make it possible to discipline more effectively "any deliberate deviations from the high moral and ethical code to which the overwhelming majority of physicians adheres . . ."

■ Referred to the Standing Committee on Constitution and By-laws a resolution calling for a change in the method of election of delegates to the American Medical Association and the vice-presidents of the State Society from a plurality basis to an individual basis.

Accompanying restrictions noted that the proposal would establish separate votes for each of the four offices of vice-president rather than the current plurality vote which results in the election of four vice-presidents with their designations as first, second, third or fourth being dependent upon the number of votes cast for each candidate. The proposal thus would establish individual nominations for each position of vice-president, for each position as delegate and for each position as alternate delegate and would require voting on each position.

■ Referred a resolution calling for a change in the PMS By-laws to allow campaigning by candidates for State Society offices to the Standing Committee on Constitution and By-laws.

■ Approved amendments to the PMS Constitution and By-laws which change the date for determining the number of delegates to the House of Delegates from March 31 of the current year to December 31 of the preceding year.

■ Approved the establishment of the Committee on Discipline on a permanent basis and an enlargement of its area of responsibility. In its approval, the House directed the Committee on Constitution and By-laws to make the necessary changes to define the scope of the Committee on Discipline's responsibilities. The necessary changes were approved.

The committee in the future shall discuss and investigate matters referred to it not only by the State Board of Medical Education and Licensure, but, by a component society, by an individual member, or by the Pennsylvania Medical Society. The approved report also noted that the activities of the Committee on Discipline shall not conflict with or supersede existing provisions for disciplinary proceedings and appeals.

■ Approved and referred to the Board of Trustees a reference committee report expressing "grave concern" relative to accepting government financial support to defray the State Society's administrative expenses in connection with Part B of medicare, and requested that such a policy be reconsidered in light of actual experience.

The approved reference committee report supported the actions taken by the Board in connection with the possible role the Society would play in assisting Blue Shield in fulfilling its responsibility as the administrative agent for the federal Medicare Program, with the exception of a decision to endeavor to procure reimbursement for the Society's medicare Part B preparatory costs. The reference committee report said that "it is still too early to accurately determine what the review work load will be" and asked the Board to reconsider its decision.

■ Supported continuing development of the prevailing fee concept to replace Blue Shield fixed fee schedule approaches to physician reimbursement.

The House approved the Board's action in rejecting a contract with the Veterans' Administration based on a fixed fee schedule and instead endorsed the concept of the payment of prevailing fees as a basis for such contract negotiations.

Approved negotiations now underway to replace the dependents' medical care program contract with one utilizing the prevailing fee concept.

The Council on Medical Service was urged to pursue active negotiations with the State Workmen's Insurance Fund to replace, if possible, the present fixed fee schedule with a program based on the prevailing fee approach.

■ Supported a Council on Medical Service study into the possibility of endorsing a group malpractice program for State Society members as a means of increasing the availability of malpractice insurance.

The council was commended for initiating an in-depth study of the problems involved "in this important and complex field." Some of the problems involved, as pointed out in the address of Dr. McClenahan, concern the availability of malpractice insurance and the increasing cost of such insurance. Dr. McClenahan also supported efforts to establish different malpractice insurance rates in various parts of the state to reflect the risk differences that exist.

The reference committee noted that the council will submit a final report on the feasibility of establishing a group malpractice insurance program during the coming year.

■ Reaffirmed the right of direct billing under circumstances determined by the physician by virtue of approving a reference committee recommendation.

The approved motion reads as follows: "That the Pennsylvania Medical Society affirm the principle that the physician must retain the right to bill directly those patients who have the capacity to pay their own bills or who have the capacity to secure protection in this regard through the voluntary insurance mechanism." The affirmation of this principle came in consideration of a resolution and a recommendation that direct billing be an inherent right under the Title XIX Medical Assistance Program.

■ Approved recommendations made by Dr. McClenahan and a resolution made by the Berks County Medical Society calling for intensified efforts to establish the prevailing fee concept in lieu of fixed fees under Pennsylvania's implementation of the Title XIX Program—the Medical Assistance Program.

The approved reference committee report noted that it received testimony indicating the Department of Public Welfare is in complete agreement with the intent of the resolution and recommendation, and has adopted a position favoring the use of Blue Shield as the fiscal administrator for the Title XIX Program. The report also noted that the Welfare Department is committed to the concept of prevailing fees but the department's ability to reimburse physicians under this program depends on sufficient appropriations by the State Legislature.

■ Directed the Council on Medical Service to meet with Philadelphia Blue Cross to consider "the obvious communications deficiency existing between it and its policyholders."

The approved reference committee report stated that Blue Cross has been remiss in communicating with its policyholders concerning the limitations in benefits contained in the subscribers' agreement.

The reference committee noted that a review mechanism in the second Councilor District will begin to function on November 9 and suggested that the review mechanism is the proper procedure for the handling of any differences over the length of hospitalization and the number and type of diagnostic procedures ordered.

■ Approved a recommendation establishing the location of the 1967 annual session as Philadelphia; dates to be September 27 through 30.

■ Noted **Pennsylvania Medicine's** increasing effectiveness as a membership communications tool by approval of the report of the Committee on Objectives.

The same approved report noted that the magazine does not have the resources to compete on a scientific basis with the national medical journals and the House "encouraged" **Pennsylvania Medicine** to continue its efforts to become a more effective membership magazine.

■ Referred to the Board of Trustees a recommendation and a resolution, by Dr. McClenahan, calling for a thorough evaluation of the annual session format. The question was referred "for a complete and thorough evaluation by the appropriate committee" which is instructed to present its conclusions and recommendations at the 1967 session. Dr. McClenahan praised the Committee on Convention Program for its "enthusiastic approaches" and an approved resolution from the Philadelphia delegation also congratulated the committee for its outstanding work.

Among the proposed revisions in the annual session format is one calling for a combined House session and Officers' Conference without a scientific program, holding a separate House session and combining the scientific program and Officers' Conference, and holding a separate House session with scientific programs presented on a regional basis.

■ Supported studies by the Educational and Scientific Trust of the State Society to determine the feasibility of developing a loan forgiveness program for those who practice in an area with proven need.

The action came in support of a recommendation to that effect made in the address of Dr. West. A second part of Dr. West's recommendation suggested that such a loan forgiveness program might be financed by using the funds now being devoted to the full-tuition scholarships, but this portion of his recommendation was rejected by the House, which noted that the Trust should be given greater latitude in determining the financing of such a program.

■ Approved a special State Society membership category for full-time medical school teachers holding PhD degrees.

This action resulted from PMS House support of a recommendation made by the Committee on Objectives. The approved report stressed that this membership category should not be honorary in nature but designed so that a member in this category can actively participate in the programs of the State Society, serve on state and county medical society committees and councils, be elected to some offices and generally be permitted to play a positive role in the affairs of the Society.

The action came after the committee noted that this important segment of the teachers of future physicians has been alienated to some extent by the medical profession. The committee noted: "These teachers, who inevitably contribute to the formation of their pupils' views of organized medicine and of the profession generally, have largely been viewed by the medical profession as neither fish nor fowl. As a consequence, a sizable community of teachers within our medical schools do not understand or sympathize with the programs of organized medicine."

■ Approved the continuation of the work of the Committee to Study Relations between Medicine and Osteopathy and adopted a recommendation made by Dr. McClenahan which calls on the State Society to recontact the Philadelphia College of Osteopathy for the purpose of reviewing its curriculum in the hope that the quality of osteopathic education can be raised.

■ Expressed high praise for the activities of the Woman's Auxiliary to the Pennsylvania Medical Society.

Adopted a resolution recommending voluntary joint billing of husband and wife to facilitate collection of Auxiliary dues. The reference committee stressed that it felt it was important such joint billing be optional.

The approved resolution resolved "That the State Society urge each component county society to include the dues of the Woman's Auxiliary on its annual assessment form, payment of which shall be on a voluntary basis."

■ Suggested expansion of liaison relationships with medical school deans and department heads by approving a recommendation made in the address of Dr. McClenahan.

The approved reference committee report directed the Board of Trustees to expand such liaison activities, if at all possible.

■ Referred to the Council on Scientific Advancement for consideration and implementation the problem of emergency medical care training for persons staffing hospital emergency rooms.

The action came as the result of a recommendation made in the address of Dr. McClenahan who noted that the State Society, independently or in conjunction with others, should establish a statewide training program for physicians manning emergency rooms so that the quality of such care is at the highest possible level.

■ Instructed that a study of sterilization, therapeutic abortion and contraceptive laws be followed and recommendations for changes made.

The action was prompted by a resolution which was amended so that the "resolve" reads as follows: "That the Council on Scientific Advancement of the Pennsylvania Medical Society be instructed to study in consultation with appropriate medical, legal and religious authorities, existing legislation and conditions, and make recommendations concerning appropriate legislation and which would clearly define the conditions under which sterilization and therapeutic abortion may be performed lawfully, and the conditions under which contraceptive measures may be prescribed lawfully, such recommendations to be presented to this House at the 1967 annual meeting."

■ Called for an investigation to determine whether or not there is evidence of discrimination in medical society membership.

The action resulted from an amended resolution which was adopted. The resolve of the amended resolution reads as follows: "That the Pennsylvania Medical Society delegates to the American Medical Association introduce an appropriate resolution to direct the AMA, through the appropriate departments, to make an inquiry to ascertain whether or not there is any evidence of any discrimination and to report back to the House of Delegates of the AMA."

■ Adopted a resolution calling on the Department of Public Instruction to encourage health career education as part of the curriculum of the technical high school programs across the state.

The resolution noted that there are various paramedical careers which require a minimum of training that should be within the capabilities of technical high schools and it suggests that the Department of Public Instruction should allow the greatest local leeway in establishing health career curricula.

■ Directed the State Society to take proper steps to encourage the transfer of the Office of Mental Health from the State Department of Public Welfare to the State Department of Health.

The action came in the adoption of a resolution from the Philadelphia

County Medical Society which substituted for a resolution that called for a separate Department of Mental Health. The substitute resolution pointed to the added emphasis in the mental health area that is certain to stem from the legislation resulting from the comprehensive mental health and retardation plan.

■ Re-endorsed its support for the establishment of a medical examiner system for Pennsylvania in acting on recommendations made in the addresses of Dr. McClenahan and Dr. West.

Dr. McClenahan noted: "We should encourage renewed efforts to establish the medical examiner system up and down and across this state and express our deep gratitude for the efforts of D. William Hunt of Allegheny County for his personalized action on this stage."

Dr. West noted: "I recommend continued support for the establishment of the medical examiner system in Pennsylvania. The constitutional changes needed to establish the medical examiner system are so clearly indicated by a comparison with our archaic coroner system as to cause me to question the motives of those who fail to bring these changes about. I cannot help but feel that any lack of action is prompted by political considerations rather than the ultimate public good."

■ Recommended the return of the packaged disaster hospitals to the control of the Department of Health.

The approved reference committee report noted that testimony indicated a "severe deterioration in morale at the local level" since control of the packaged disaster hospitals was transferred to the state Council of Civil Defense.

■ Endorsed a recommendation by Dr. McClenahan calling for the expansion of the medical impartial witness rule and the matter was referred to the commission on Forensic Medicine for implementation.

PMS BOARD ACTIONS

■ Adopted a 1967 General Fund Budget, which provides for expenditures of $814,667 from anticipated revenue of $822,394. The bulk of the income will be derived from the annual assessment, of which $64 is allocated to the General Fund. From the total annual assessment of $75, eight dollars is allocated to the Educational and Scientific Trust for the Educational Fund and three dollars is allocated to the Medical Benevolence Fund.

■ Disapproved the request of the Council on Scientific Advancement that the Society assume fiscal and administrative responsibility for a Federally financed program of medical education courses in psychiatry proposed by the Pennsylvania Steering Committee for Continuing Education in Psychiatry.

■ Agreed to a further study of the problem of communications and the establishment of an administrative Department of Communications by creating an ad hoc committee under the chairmanship of Clarence J. McCullough, M.D., Immediate Past Chairman of the Board of Trustees.

Significant actions taken by the Board of Trustees and Councilors of the Pennsylvania Medical Society at meetings held on October 8 and 13, 1966 during the annual session in Pittsburgh:

■ Approved the request of the Committee on Aid to Education that the allotment of the annual assessment to the Educational Fund be made available for distribution by the Trustees of the Trust into either the Loan Account or the Scholarship Account as it is needed to provide greater flexibility in granting financial assistance to medical students.

■ Gave final authorization to the officers of the Society to consummate the sale of the Society's property at 230 State Street, Harrisburg, and to secure a mortgage on the new building in Lemoyne of not more than $250,000.

■ Approved a program of hospital utilization review recommended by the Council on Medical Service and the Blue Cross plans operating in Pennsylvania.

■ Agreed that the appropriate hospitals outside the geographical limits of the Fifth Councilor District should be invited to participate in the program of the Medical Care Coordinating Committee of the Fifth Councilor District.

■ Reorganization of the Board of Trustees and Councilors following the adjournment of the House of Delegates resulted in William A. Limberger, M.D., Chester County, James A. Biggins, M.D., Mercer County, and D. George Bloom, M.D., Cambria County, taking office as Trustees and Councilors for five-year terms from the Second, Eighth, and Eleventh Districts respectively, and George A. Rowland, M.D., Columbia County, taking office as Trustee and Councilor of the Fourth District for a two-year term.

■ Dr. William A. Limberger was elected Chairman of the Board of Trustees and John S. Donaldson, M.D., Allegheny County, was named Vice-Chairman for the ensuing year.

■ Carl B. Lechner, M.D., Erie, was renamed Medical Editor of PENNSYLVANIA MEDICINE, Lester H. Perry was again designated Treasurer, and Pepper, Hamilton & Scheetz, Philadelphia, were continued as legal counsellors.

■ Named to serve on the Committee on Aid to Education were William F. Brennan, M.D., Allegheny County, W. Benson Harer, M.D., Delaware County, and Robert S. Sanford, M.D., Tioga County.

■ The members of the Committee on Medical Benevolence for 1966-67 are Allen W. Cowley, M.D., Dauphin County, Herman A. Fischer, M.D., Luzerne County, Park M. Horton, M.D., Susquehanna County, and E. Roger Samuel, M.D., Northumberland County.

Address of the President-Elect— J. Everett McClenahan, M.D.

Presentation before the House of Delegates at the 117th Annual Session of the Pennsylvania Medical Society in the Penn-Sheraton Hotel, Pittsburgh, on Sunday, October 9, 1966 at 4 p.m.

Federal Participation Services

At a time when the value of life itself has a lower rating than at any previous time, the medical profession goes about its daily duty of dispensing medical services for which it is trained, for which the public in its ever increasing sophistication demands top priority. Health care has always been our objective and we are the only ones trained to offer this service. However, health care and health needs have become the primary interest of a multitude of organizations and of thousands of persons who know very little about health. Why this sudden interest in the health field? We have ourselves to blame. The advances in our scientific field have created in the public a very deep and abiding interest in many aspects of health. We are guilty of dramatizing many areas that until recently would have been considered sacred. Ten years ago would you have predicted a television show featuring a live birth? The public has reacted to the scientific as well as the social changes of the day and has demanded more and more health care. The profession, through its scientific efforts, has created a greater and greater degree of sophistication of medicine itself, resulting in a greater and greater demand not only for more and more help in the paramedical areas, but more and more sophistication of that help.

Title 18

Outshining most of the efforts of the 89th Congress are public law 89-97, the so-called Medicare Law, and the Heart, Cancer and Stroke Amendments of 1965.

The Secretary of Health, the Public Health Department and Health, Education and Welfare cooperated in many ways with our American Association Advisory Committees in setting up the final regulations governing Public Law 89-97. We owe a debt of gratitude to men like Jim Appel, Russell Roth and many others for the time-consuming efforts on behalf of all medicine. The bill was first passed by a margin of 313 to 165 by the House. Later, after 513 amendments of the House version, this law was passed by a margin of sixty three to twenty one in the Senate. No one questions the majority vote and few question that the vote represents the will of the people. The Act was implemented July 1, 1966 with astounding smoothness, a tribute in this State to the work of Dr. Tom Georges, and certainly a tribute to the average doctor who, while opposed to the principles involved, nevertheless respected the law of the land and the will of the people. Physicians have added to their burden in complying with the Law. The average man has not the slightest conception that the Medicare Law has added, and will continue to add, to the physician's burden. I refer to a few such instances.

He must memorize those areas not covered by the Medicare Law; he must certify the need for medical care and then re-certify, depending on the length of stay; not only must he create a plan for utilization review but he must sooner or later actually participate in such reviews. He must justify to the review committee any extended stay of his own patient; under part A, he must be able to explain to his patient why the patient has had to pay the first $40 of the hospital charges and the first $20 of his out-patient services (in spite of the efforts of Health, Education and Welfare to explain this to the beneficiary); he must determine before billing his patient the deductible status of his patient; he must collect the first $50 in hospital cases and the first $20 of out-patient care, but before doing so, he must determine the deductible status of the patient. In order for the patient to collect from the government, the physician must provide, whether he bills directly or takes an assignment, certain information, etc.

Dr. McClenahan has approached his charge to the House of Delegates in a completely new manner. He prepared a manuscript specifically for the members of the House for their information. The manuscript covered a wide spectrum of problems currently facing medicine and was designed not only to define these problems but to produce such background in a number of them to permit the members of the House of Delegates to become thoroughly informed relative to these problems.

Only a portion of the entire manuscript was presented to the House of Delegates but the manuscript itself was made available to each member.

Dr. McClenahan has suggested the Pennsylvania Medicine edit the manuscript in such a manner that only the highlights are published. This has been done. Any member of the Society wishing a copy of the complete text may obtain one by directing a request to Pennsylvania Medicine.

The doctor must also learn to tolerate certain frustrations. He must accept as his "fee" "reasonable charges" which have been set, not by himself, but by a third party known as a carrier; he must learn to accept the fact that the law does not provide a court of appeal for the physician, as it does for the patient; if his charges are over the so-called prevailing "fee" for his area, the public will be apt to accuse him of overcharging; he finds himself required to do double billing if the patient has purchased complimentary insurance to cover the deductible and the co-insurance factor; he must know that if the deductible has not been met he must do direct billing; if he accepts an assignment, he, of necessity, must be concerned with the deductible factor, the co-insurance factor, and the reasonableness of the fee. He must go to the trouble of determining the fact that the laboratory to which he is referring his patients for tests is certified to perform such services; he must put up with the disgruntled patient and his family and his relations when the patient is required to go to an extended care facility, etc.

He is concerned about effects on the practice of medicine as a result of the law, such as the law's effect on our traditional sources of patients for our educational programs; the possible infringement on the privacy of the physician as a result of governmental statistical studies; and again he worries over the possible extension of the benefits to those under 65.

Title 19

For those who have made a study of Title 19, there seems to be a much greater potential impact on the future practice of American Medicine than that resulting from Title 18.

There is a seeming lack of interest in Title 19 because Federal-State Medical Assistance programs have been in operation for many years. Under various laws, using a variety of sharing formulas, states long have received federal funds to help defray medical costs for such persons as children of families on welfare, elderly persons on social security, old age assistance and blind and disabled persons. This has been true in Pennsylvania since 1935. Since 1960, federal-state medical aid to the needy has encompassed a large group of elderly people under the Medical Assistance to the Aged (MAA) program. MAA has picked up the medical bills for the elderly people who are financially indigent and, of even greater importance, it also aids older people who may be living in reasonable comfort on a pension or savings, but who could very rapidly become impoverished if faced with paying the bill for a major illness.

Title 19 is a part of Public Law 89-97. It appears to be an attempt to wrap up the many federally aided state programs into a single package, streamlining them into a much more practical and economic administrative set-up. It extends such benefits as have been mentioned to the medically indigent persons of 19 to 65 years of age.

By July 1, 1967, all state programs must provide five basic benefits within that program; for instance, (1) hospital care; (2) outpatient hospital care; (3) all physician services; (4) nursing home care for adults; and (5) laboratory and x-ray services. If the states so desire, they may broaden the base of these benefits to any extent they choose.

The addition of all medically indigent is the source of tremendous impact on the future practice of medicine in this country. The Government, at least up to this point, permits the individual state to determine its own financial level of indigency. The combined effect of these two features has caused both the physician and the government officials to take a look in greater depth at the indigency levels.

Of interest are requirements with regard to payments: (1) payments must be such that those eligible to Title 19 can obtain care at least to the extent care is available to the general population of the state; (2) only those providers of service who accept the agreed fee as payment in full can participate in the state plan.

No limits are established on the state's choice or method or amount of payment; no specified method is either required or prohibited. The federal gauge to be applied to "fee structures" is the result in terms of availability of care. If fees paid by the state are such that providers of care will not accept Title 19 patients, this is grounds for disapproval of the entire state plan.

The second requirement prohibits providers from billing for services beyond the amount agreed in the "fee structure." This does not in itself prohibit the patient from paying part of the cost, but in such cases the patient's payment plus the Title 19 payment would still have to fall within the limit set by the "fee structure." This limitation applies, of course, only to services for which Title 19 is paying.

The Board of Trustees of the Pennsylvania Medical Society adopted a recommendation by the Council on Medical Service to urge the Department of Public Welfare to use Pennsylvania Blue Shield as that Department's intermediary in making payment for physicians' services under Title 19 in Pennsylvania. The Board of Trustees charged the Council on Medical Service with the responsibility of assisting the Department of Public Welfare and Pennsylvania Blue Shield in designing and implementing the Title 19 program so that it would provide for the payment of "prevailing fees" for all physicians' services.

In the Spring of 1966, the Department of Public Welfare concluded an agreement with the Pennsylvania Blue Cross Plans to provide for the administration of the Title 19 Program as it pertains to hospital care. Therefore, it naturally follows that the administration of the program as it pertains to payments for physicians should be conducted on the same basis; for instance, using Blue Shield as a physical intermediary. Secretary Rosenn has been notified of our position and it was suggested that he arrange for an early meeting to discuss this particular matter.

From an historical standpoint, this Society has had very little success in obtaining "realistic fee" schedules for medical assistance programs and we have already been informed that funds are not available to pay the $50 deductible or the 20 percent co-insurance for those welfare recipients (40,000) who are now eligible for Part B Title 18 benefits. Therefore, it is reasonable to expect that the Welfare Department will negotiate for something less than usual fees. On the other hand, when one examines the recent appropriation for the office of public assistance for the fiscal year commencing July 1, 1966, it would appear that more money is available than we have been led to believe.

While I have some reason to feel that Mr. Rosenn, Secretary of the Department of Public Welfare, has under consideration the use of Blue Shield as a fiscal intermediary and is not unfavorable to the payment of "prevailing fees," we do not have any definitive information on these points or their outcome at this particular time. The alleged lack of proper funds for payment of "prevailing fees" under medicare suggests the possibility of a watered-down fee schedule. It is quite clear that the law provides for standard level of payments for all other services to welfare patients. Those who advocated support of this law repeatedly referred to changing the indigent and medically indigent from second class citizens to first class citizens. There seems to me no justifiable reason, under these circumstances, for the physician's fees to be anything less than prevailing fees. I can see no reason to subsidize the government in its program under these circumstances. In reality the physicians of this state should, in my opinion, stand strongly in favor of the prevailing fee concept and in lieu of this, treat these patients without fees.

Heart, Cancer and Stroke

Heart, cancer and stroke and allied legislation has been altered to a sufficient degree, so that we are now working with its activators. If implemented in its present concepts, keeping the heart, cancer, stroke and allied diseases program educational in purpose and regional in application, this law could result in great improvements in health care at the community level. However, the Heart, Cancer and Stroke legislation is clear evidence that the government has no intention of stopping with Titles 18 and 19. In Washington there are over fifty bills pending, all of which offer amendments designed to expand and extend the benefits of these laws. Many of the effects of these laws can and undoubtedly will be beneficial, but many of them will have had a totally inadequate inspection and will have failed to have had an unbiased appraisal before they are passed.

Reference to the American Medical Association influence on the Heart, Cancer and Stroke legislation was not made idly; two very important facts have been revealed: the advice of the practicing physician has proved exceedingly valuable to the government, the beneficiaries, and the medical profession, and secondly, the ice has been broken, for they now admit the virtue of seeking the practicing physician's advice. Something went wrong in organized medicine's approach to our problems. We have witnessed a tidal wave of health legislation instituting literally hundreds of federally financed or partially financed health programs with almost inevitable government controls to follow. I believe the originators of these programs took sufficient time to listen and to analyze the health complaints of the populace, made detailed studies of the health needs and originated positive and exciting programs with an appeal to the voter. It took hundreds of nonprofessional individuals, often financed by the government, to come up with their ideas and plans. Lacking funds, time, and even motivation, the medical profession did not or could not come up with equivalent or better positive programs, at least not in time. Did we fully respect the criticisms directed at our profession, at least to the point of doing a bit of clinical research to prove we were right? Did we recognize the value of analyzing our own deficiencies? Have we analyzed fully the needs of health care at state and national levels? There is no doubt in almost every American's mind that we have the finest medical care in the world. But is that enough? When a brilliant medical scholar makes a statement like this, "If I were asked to name the greatest problem facing American medicine today, it would be the inadequate or absent health care for a large portion of the public," the medical profession must respect that opinion. Certainly this is not a recent development. Do we believe this an untruth, or do we believe, if it is true, that from a realistic standpoint nothing can be done about it? If is it true, is it the medical profession's duty and moral obligation first to recognize the problem and second to do something about it, or do we feel the problem is too big for us and that it is the Federal Government's problem? I submit we have failed somewhere along the line to come up with an exciting new approach and a positive program that conceivably could have resulted in a deployment or defeat of social security legislation and had in its place constructive voluntary programs with or without the blessing of the Federal Government.

State Legislation

At the state level we find two separate departments responsible for programs related to health, namely, the Department of Health and the Department of Public Welfare. Health legislation has not been confined to the Federal Government. State legislation, while generally less spectacular, has been quite active. During the Scranton Administration, legislation approved by the Pennsylvania Medical Society has been greater in scope than in previous administrations. Legislation involving health care at the state level will continue at a rapid pace.

Our Society must of necessity be vitally concerned with our state legislative activities. Both the Department of Public Health and the Department of Welfare have extensive programs covering a very wide area of interest in health. The Welfare Department has access to the Federal Government, its Department of Health, Education and Welfare and to the administration of the federal programs. As such it has the money. One may believe that they will make every effort to prevent any change in this.

When I put all the state legislative facts and possibilities together, I can visualize the very great importance of a close Pennsylvania Medical Society liaison with the Department of Health and the Department of Welfare. I believe that this should be done by the same body. Important current thinking and actions of the legislative bodies are thus available to our members and can influence and guide the medical programs in a manner most favorable to our patients and to us.

Malpractice

Many of our members are faced with the serious problem of being unable to obtain malpractice insurance. There is also the problem of increasing costs of malpractice insurance and there is, in spite of all warnings to the contrary, the problem of the uninsured practicing physician and the one with limits so low they are a constant hazard to himself and to his family. It is true that the average malpractice verdict is still around $5,000. However, it is also true that a greater number of verdicts have resulted in exorbitant figures and that some physicians are unable to pay without having insurance. While it is true many doctors purchase the upper limits of malpractice insurance, it is also true that eight percent of Pennsylvania physicians have less than an amount which is reliably considered minimum, namely $25,000. Malpractice insurance rates and needs vary in various sections of the state; therefore, our Board of Trustees recently recommended the approval of establishment of different malpractice insurance rates in different parts of the state. I urge the proper body of this organization to reacquaint the insurance commissioner with this serious problem and urge her favorable consideration of our Board's recommendation.

Utilization Review

As you know, the Welfare Department either certifies or rejects a hospital for participation under the Medicare and Medicaid Programs. In Western Pennsylvania, Blue Cross will consult with the local medical societies in determining what information is necessary for reporting hospital utilization activities. I would like to suggest that the proper body of this organization contact the Welfare Department and urge them to consult with the Pennsylvania Medical Society's proper representative to aid in reviewing gathered materials that are to be used for the certifying or noncertifying hospitals. Such cooperation will keep this part of the law out of the area of politics and will add solidity to the unfavorable decisions of the Welfare Department, should they be made. I also feel that the same body would be wise to suggest that other Blue Cross organizations, other than those in Western Pennsylvania, look seriously into the possibility of establishing the plan worked out by Blue Cross of Western Pennsylvania, instead of depending as they do on the Pennsylvania Medical Society official body for consultation only when problems arise.

I want, again, to make a plea for utilization committees to function on the basis of all admissions and all discharges and to consider the medicare phase of these admission activities as a fifth wheel on the wagon—something that we have to put up with but will take along with us. Utilization studies are something that the medical profession should have done years ago. It should be considered one form of self analysis, just as important as the medical audit or the tissue committee. If a staff is sufficiently interested in improving the quality of care this committee, acting on cases of all ages from birth until death, can supply the tools.

Medical Impartial Witness

I have been interested and active in the establishment of a rule, in both the Federal Courts and the Court of Common Pleas, implementing the impartial medical witness. With serious accident rates mounting almost daily, with 70 to 80 percent of our liability court cases involving and often rotating around a medical component, it seems to me an effort to establish this rule in our superior and supreme courts is highly justifiable. I recommend that the proper steps be taken by the proper body of this organization to make detailed studies of the problem as experienced across this state and across this land, to be followed by a realistic approach to the proper authorities for the eventual establishment of this rule in the aforementioned courts, as in all courts of the Commonwealth.

Health Facility Planning

Social and economic changes of the day, the population explosion, physician and paramedical personnel shortage and health legislation make health facility planning inevitable. We have no choice and I see nothing fundamentally wrong in the philosophy as long as physicians have an active role. The Philadelphia, Jersey and Delaware areas have produced remarkable cooperation and results without, as far as I know, any socialistic charges. Health facility planning has become a very conscious effort of private industry, many lay groups, and public health workers. It may be one of the greatest individual factors in the revolutionary changes in medicine. We will, in my opinion, make a great mistake to fight it. We will make a much greater mistake by not becoming an active part of it.

Recently the Board of Trustees approved a recommendation of the Council on Medical Service to appoint a new commission on health facility planning. A pointed effort has been made in the appointments to make this commission a strong one, representative of most areas in the state.

Medical Schools

It is my feeling that I cannot and should not avoid a discussion on a subject that has caused much misunderstanding in our profession. This has to do with the relationships between the faculties of our medical schools and our State organization: to the very significant area of defining the responsibilities of the medical schools and faculties relative to the health needs of the various communities in this state. A great injustice would be done if it were indicated to the town group that medical schools have not seriously considered this problem, or that definite attempts to solve it have not been made. I am of the opinion, however, that too frequently the efforts are made within the framework of their own institutions and not necessarily coordinated with the needs or with specific planning on a statewide basis. An equal injustice would be committed if I should indicate these medical schools and medical faculties would not respond to overtures for cooperation. Having been a faculty member on a part-time basis for some thirty-six years, I am of the opinion that state organization has failed to come up with a positive program to justfy the schools and the faculties devoting their time and efforts to the subject material and the problem.

I am of the opinion that the medical schools of our state have contributions to offer in great measure to the practicing physicians of this state, to the Pennsylvania Medical Society and to the health of the communities, other than that of merely the teaching of students and contributions to research. The complexities of medical practice and the revolutionary changes taking place in that practice no longer permit a separation of medical schools, medical faculties, the practicing physician and the state organization. Failure to recognize this on the part of any division is tantamount to failure to recognize your obligations to the populace. I request the formation of a state liaison committee with the deans and department heads of medical schools for the purpose of bringing to our organization both advice and contributory efforts by the medical school faculty of this state, in an effort to improve the health care of the various communities of our Commonwealth.

Emergency Rooms

The past ten years have seen a great increase in usage and a greater change in the pattern of medical needs in our emergency rooms. Interns and residents often are not available in the community hospital and the staff is entirely too hard-pressed to take on emergency room assignments. Many cases may not be true emergencies, but the public demands and needs emergency rooms. The hospital administrator is often forced to utilize a team of full-time physicians to cover these services. Often the emergency room physician has not had surgical training and more often than not his training in medical and surgical emergencies is practically nil, except that which he picks up through experience. Neither the hospital, the physician, nor the public is at fault. Yet the public may pay a severe penalty for having to appear in an emergency room staffed by those not qualified to handle that particular case. The Pennsylvania Medical Society should recognize the emergence of the emergency room problem. I recommend this Society, either independently or in conjunction with the American College of Surgeons and the American Medical Association, establish a state-wide training program for physicians manning emergency rooms.

Mental Health

I believe formal recognition should be given to the many lay and professional individuals who have contributed so much in effort and time while serving on the task forces and regional committees, resulting in the presentation to the Governor and now to the legislature of the Comprehensive Mental Health Plan of 1965. It is important that the proper body of this organization work actively with legislators and with the Office of Mental Health for the purpose of urging and increasing integration of the plan with the existing practice of medicine. Physicians should be informed concerning the plan through the proper media, continually bringing them up to date with its program, and then be urged to participate in community activities.

Council on Scientific Advancement

I would like to draw your attention to the creation of three new commissions of the Council on Scientific Advancement; one on drug addiction and alcoholism, one on traffic safety, and one on sports injuries. This Council creates, implements, and supports programs in the scientific health field that are the very meat of our organization. I would charge these commis-

what
time
is it?

For the past
two years
there's been
one new case
of active tuberculosis
reported for every
four thousand
of U.S. population.

it's time
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sions to approach their assignments with an idea of generating positive dynamic programs in those areas that cannot help but produce a favorable public impact. Similarly, programs in the environmental health fields, the educational explosion, and suicides at all economic levels should come under the examination of the Council. I suggest the Council study in depth the manpower shortage and make recommendations to this House and to the Board of Trustees relative to this important problem, in the hope of helping to find a solution.

Too little is known by both our membership and the population at large concerning the programs of this Council. I would charge the Council Chairman to see that the programs are widely publicized and, in conjunction with the Department of Communications, comb their programs for valuable community health news items. I would charge the Department of Communications to utilize these items for public information.

Organization

As our programs expand in numbers and in depth, the wisdom of subjecting these programs to a critical review becomes apparent. I recommend a small and totally impartial committee to review all of our programs, rating them with a value based on the program's needs, its costs, its public relations impact and its ease or difficulty of implementation.

In this same vein I recommend that the proper body of this organization appoint a small committee to review all of this Society's legislative interests for the purpose of recommending to the Council on Governmental Relations and the Board of Trustees those areas which have the greatest need of Society action. This could be a subcommittee of the Council on Governmental Relations or otherwise.

Combining the meetings of the House of Delegates and the Officers' Conference has been suggested. Combining the Scientific meeting and the Officers' Conference, the meeting of the House of Delegates to be held entirely independently and at a different time may also be considered. I believe it is of sufficient importance that the proper body of this House should review the problem and make recommendations to this House either for action or for tabling of the subject.

I note the fairly marked turnover in our staff personnel. I would suggest that the Board of Trustees re-review this trend with the idea of preventing the loss of capable staff.

The last of the organizational problems to be mentioned is one that I consider with great hesitancy for I am quite aware of some of the remarks and criticisms which were made when a Past-President made a similar suggestion. I need not remind you that our organization at a staff level lacks active full-time physician participation. The multiplicity and the complexity of the problems faced by medicine today makes me wonder as to the merits of such policy. In view of these great problems, it is a tribute to our present organization that things run so smoothly. The required qualifications of such an individual would make it difficult to find him. I am suggesting that the proper body of this organization re-review the possibility of full-time physician employment in our organization.

Paramedical Groups

We are acutely aware of the rapidity with which scientific and technical advances are made and the need for the clinical applications.

The past half decade has shown almost unbelievable advances in many areas of science, and medicine has in some cases shared these advances and in others has led them. It requires an ever increasing multitude and variety of disciplines to accomplish and produce successful clinical applications of the scientific advancements in the medical world. We readily recognize that we cannot do all of the required work ourselves. One of the most important problems facing medicine today is that of obtaining adequate paramedical personnel trained in the related health fields.

Recently our State Board of Licensure has stated that it plans to license a number of these groups and will begin by licensing the nurse anesthetist, the surgical technician and the inhalation therapist. It is their contention that many of these groups are trained by schools whose curriculum can only be controlled if the group is licensed.

There is no question about our responsibility. Physicians are the responsible parties for patient care and they are the sole persons trained in this care. When a member of a paramedical group participates in a direct service he does so at the direction of a physician. It is our responsibility to see that he is properly trained. I feel that our responsibility goes a bit farther in seeing that his sources of training are adequate and that encouragement by us be made to the proper people to enter this field of activity and to give proper advice to hospital management about continuing an adequate remuneration.

It is my feeling that our Society has often lacked adequate liaison with the Board of Licensure in the past and that this is the fault of our Society rather than the Board. I feel that there are justifiable reasons for reviewing with that Board the entire Medical Practice Act to update the same. I recommend that the ad hoc committee, recently created by the Board for the review of the Medical Practice Act, not only conduct that review but re-review with that Board the problems of paramedical personnel licensing and report back to this body and the Board. I also request that the proper body of this organization authorize the proper group to make a study of the shortages and replacement needs of paramedical groups in this State, for the purpose of bringing their findings to the attention of both our Society and the public at large, in the hope that a realistic approach to a serious problem affecting the health needs of our community will be found.

Hospital Staff Relations

One of the top-most problems we face today is the physician-staff-Board of Trustees relationship. In many hospitals this relationship is excellent. In many others the relationship is deplorable.

Differences of opinion, where they exist, could have serious implications in that they may adversely affect medical care in a community. There should be no place in the hospital family for major differences that could be reflected in the quality of medical care of the community. In this picture the physician asks for the right to be consulted regularly by administration and Board members with the opportunity to express his opinion and that of his colleagues.

This could well be our No. 1 problem. It deserves recognition and considered action on our part. The most powerful single unit in the medical profession today is that to be found in a united staff, for united staff action can do that for which it is highly qualified, namely to run the medical service in a manner best suited to meet the medical needs of a community.

The Hospital Relations Committee is, in my opinion, under-rated in its importance. I suggest we charge the

Committee to conduct a thorough state-wide hospital staff survey for the purpose of determining (a) the true status of hospital staff in relation to administration; (b) what influence, if any, the employment of full-time physicians by hospitals has had on staff-administrative relations; and (c) the extent of influence of Hospital Surveying Organizations in the trend toward employing full-time physicians by hospitals; and (d) the extent of this trend in this state. The findings of the Committee should be reported to our Board and to this House.

The problem of direct billing by the hospital-based physician is current. It is my opinion that the State Society, if requested by one or more physicians desiring to do direct billing or by their specialty society, should offer to arrange a conference, at the earliest possible time, on the subject of direct billing by hospital-based physicians, to be attended by leading representatives of all organizations concerned and to be conducted in an atmosphere free of tension.

I would like to suggest that hospitals have not assumed a leading role in informing the public of the why and wherefore of rising hospital costs; that they have permitted the physician wittingly or unwittingly to bear the brunt of the adverse public opinion relative to hospital costs and that they have avoided a cost analysis which would reveal where the true costs are. These facts should be forwarded to the Executive Secretary of the Pennsylvania Hospital Association by the proper body of this organization, to encourage him in his role to attempt to correct these deficiencies in the future.

Osteopathy and Medicine

Pennsylvania has a total of 1,417 osteopaths, a ratio of 12.3 per 100,000 population, second only to Michigan. Allentown, York, Erie, Harrisburg, Lancaster and Philadelphia each show a ratio of Doctors of Medicine to Doctors of Osteopathy of less than 10 to 1.

The present policy of the AMA is that voluntary professional associations with a Doctor of Osteopathy should not be deemed unethical if the Doctor of Osteopathy bases his practice on the same scientific principles as those adhered to by members of the AMA.

DR. MCCLENAHAN

In Pennsylvania approximately fifteen hospitals have granted osteopaths staff privileges and five former California osteopaths who received a Doctor of Medicine degree from the now California College of Medicine, which was formerly a school of osteopathy, have been, as a result of a ruling by the Attorney General of this State, licensed by our State Board of Licensure and are now members of their county medical societies. In 1962 the Pennsylvania Medical Society approved consultations by Doctors of Medicine with osteopaths, suggested the latter be invited to attend post-graduate educational programs, and approved a recommendation to bring about the merger of the medical and osteopathic professions in the state of Pennsylvania, dependent upon the Philadelphia College of Osteopathy seeking accreditation as a medical college. The report of the American Medical Association Committee on Osteopathy and Medicine was referred to the Committee on Medical Education and Hospitals. The latter concluded that the quality of the teaching in the schools of osteopathy was inferior. It was the committee's opinion that the quality of these schools should be greatly upgraded before union should be taken into consideration. This reference committee concluded, "It can be assured that under existing statutes and by virtue of continuing modifications of consolidations of medical and osteopaths acts, there will be an increasing number of osteopaths licensed each year to practice without limitation." (That is, under an unlimited license giving them privileges to practice medicine and surgery.)

It is my recommendation that the proper body of this organization recontact the Philadelphia School of Osteopathy for the purpose of review, if possible, of their curriculum and, if needed, make in the proper diplomatic manner recommendations for the early upgrading of the same; and, if deemed proper and wise, offer whatever aid is necessary to its final accomplishment, with the ultimate goal of creating an atmosphere conducive to the union of these two professions on a relatively equal academic basis.

Communications

The problem of accurate and adequate communications in the Society is of great importance and concern to me. Recently our advisory committee to the Executive Director recommended the creation of a Department of Communications within our Organization. The advisory committee did not visualize the need for council or committee direction of the activities of the Communications Department in the same degree essential to the programs of any of our administrative councils. This recommendation was adopted by the Board of Trustees and is being submitted to this House for action. As a member of both the Advisory Committee and the Board of Trustees, I voted for this measure twice. To me it has considerable merit. However, as I give it more thought, I feel that there is a weakness in that the Department of Communications will have no supervision except in those unusual circumstances in which technique of communications overlap the policy area or in cases in which a positive news story involves questions on which no definite and clear-cut policy exists. Under these circumstances, it is suggested a Communications Committee consisting of the President, President-Elect, and the Chairman of the Board pass judgment.

While it is apparent that the Department of Communications would be made up of staff personnel who are experts in this field, nevertheless, I still feel there should be available Society consultation on a day-by-day basis. This should not eliminate the Communications Committee, as had already been suggested. I recommend this idea be given consideration by the proper body of this organization.

Summary

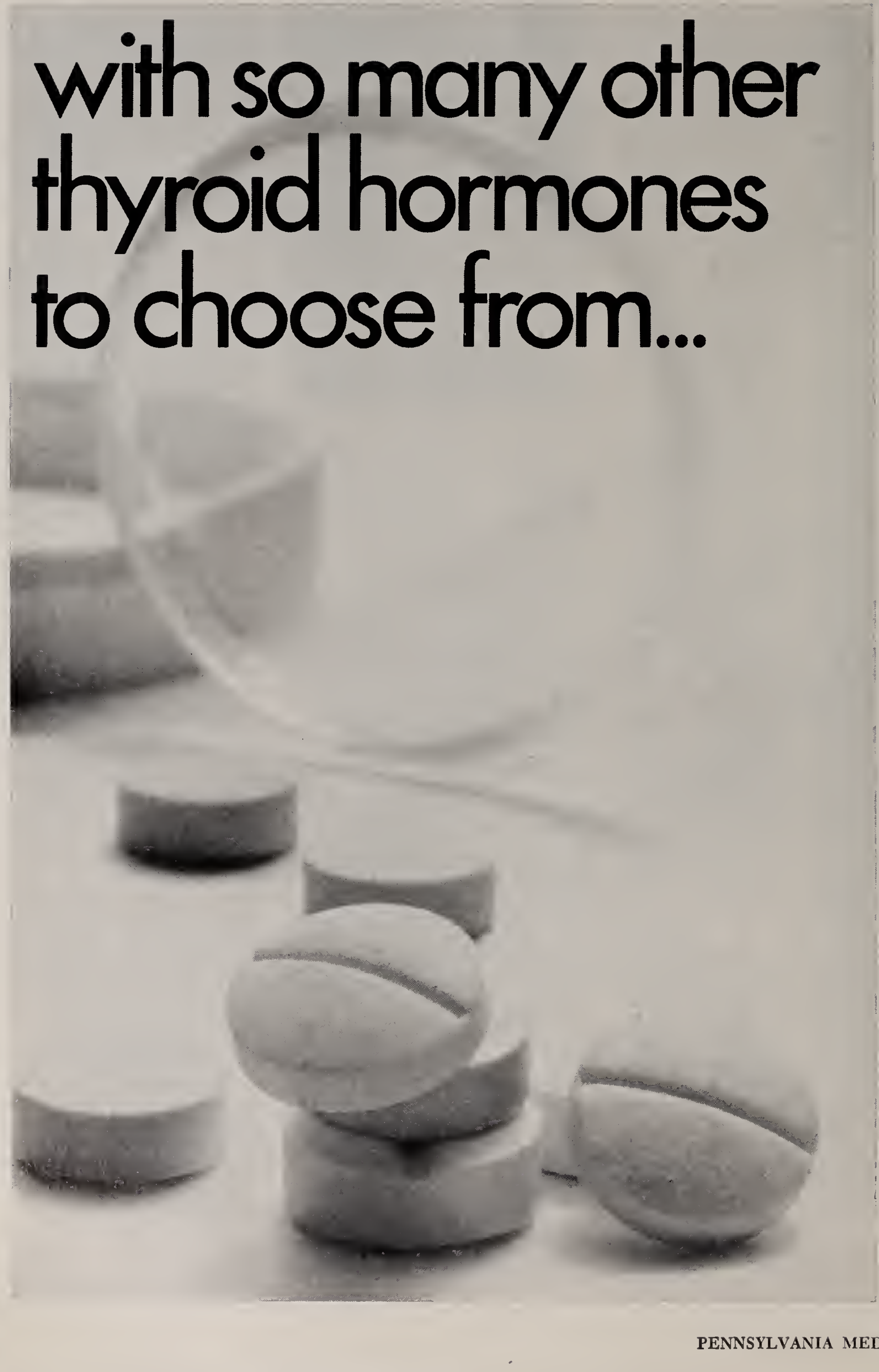
I have referred repeatedly to the tremendous recent advances in the scientific field of medicine and the complexities of the medical problems of today. History will record the present era as one in which there has been revolutionary changes in our field. It is most important that the members of our Society recognize this. It is important that they realize that they do not stand alone in the area of change. Lawyers, clergymen, dentists, engineers, architects, pharmacists, educators and physicists are exposed to similar revolutionary changes and have much more in common with our problems than many of them realize. It is important to realize that many of today's complexities are the direct result of our own explosion of scientific discoveries. It is important to realize that the greater the depth of these explosions the greater the distance between the medical profession and the public as a whole. We cannot afford to permit such a gap to develop or to persist. Other factors enter into the picture; for instance: the world population explosion; the unusual mobility of that world population; its two-thirds concentration in metropolitan centers; the greater degree of sophistication of that population as a result of an explosion of knowledge; the increasing dependence on paramedical groups along with a manpower shortage in both medical and para-medical areas, the trend of specializaton within our own ranks—all contribute to the overall picture. That this revolution is taking place, that it is partially of our own making, that it will continue to have its impact on medical practice is of paramount importance to all of us. It is important to know that we can no longer deal with the public in the same manner as even the immediate past generation of physicians. The day has passed when we can enjoy the benefits of the now and live in the simplicity of the past.

It is important to realize that it is not impossible for our profession to continue to occupy its proper place in public opinion. It is important for us to realize that our profession continues to enjoy a degree of public trust and confidence that is not enjoyed by any other profession. We must recognize, however, that a challenge is being made to that same trust and confidence by outside advances, suggesting that the public would do better to place its trust and confidence, as far as health needs are concerned, in the government. This is a serious challenge and we can neither afford not to recognize it nor to ignore it.

We can list the many accomplishments of the medical profession; we can detail the great number of benefits accruing to the community and public-at-large as a result of the numerous health programs being constantly conducted at national, state and local levels; we can document the manner in which the physicians are constantly exerting efforts to keep abreast of the times through all manner of educational programs; we can list the fact that the average physician spends one-seventh or one-eighth of his time in free work, etc. All of these are to the public relatively meaningless, however, until we can prove that such programs meet their needs. For instance, if the premise is correct that the explosion of scientific knowledge is the cause of the ever increasing degree of specialization, has this depleted one of our most valuable assets —the availability of the family physician? If it has, it wants to know what we are going to do about his replacement, what we are doing about the conservation of the time of the remaining family doctors in practice and how effective our efforts are in making it possible for him to keep abreast of the times. Have we as a Society formulated a positive program to educate the public as to the cause of the shortage of family physicians and if not, should we? Those in family practice need help. Are we making solid efforts to supply that help, for instance, in bringing to them adequate continuing educational programs, adequate evaluation of the possible advantages of group practice and adequate dissemination of such evaluation, in the hope of conserving the family physician and of being able to continue to provide adequate health care to the community itself, outside of the hospital? Have we adequately explained to the public why practicing medicine by way of house calls is rapidly disappearing? The need for education of the public relative to its medical care is quite apparent, but what are we doing about it? I suggest we carry out such an educational program. We should encourage and foster pleasant relationships with other professions. We should encourage a much closer relationship between our profession and the paramedical groups and those groups with which we normally should have the right to anticipate a common interest. We should specifically define such groups. We should renew efforts to establish the medical examiner system across the State. We will be wise to cultivate better press relationships. I suggest the proper body of this organization make an effort to carry out these recommendations.

Patients want to know that the physician of today has re-dedicated himself to ethical principles. They want to know that the medical profession has proper methods of dealing with the occasional violater of these codes. One of the greatest hoaxes of all time is being impressed upon the public through catch phrases used most often by welfare workers and public health workers. I have heard them speak these words so often that I could almost give their speeches for them. I refer to such statements as: "We need to have the right person, with the right diseases, in the right place, under the care of the right doctor who has the right equipment to render the right care if we are to accomplish our aims." The speaker goes on to intimate that lack of such a set-up has produced 10,000 or some such number of unnecessary deaths.

Our basic strength lies in the individual doctor and his re-dedication to the ten Principles of Medical Ethics. Our own willingness to make whatever sacrifices are necessary to continue to live up to these principles will do more than any other thing to preserve what is left of voluntarism. The public knows our accomplishments to date have been without governmental direction and I sincerely believe that this is what it still wants. We shall see that the public gets it. If community health and community health planning are the result of factors over which we have no control, if they represent the future trends of medicine, then I suggest we get right in the middle of it, stay with it and guide it in the way it should be guided, in a manner conforming with the voluntary system of dispensing health services. With governmental help, yes, for it is already here; with governmental control, no.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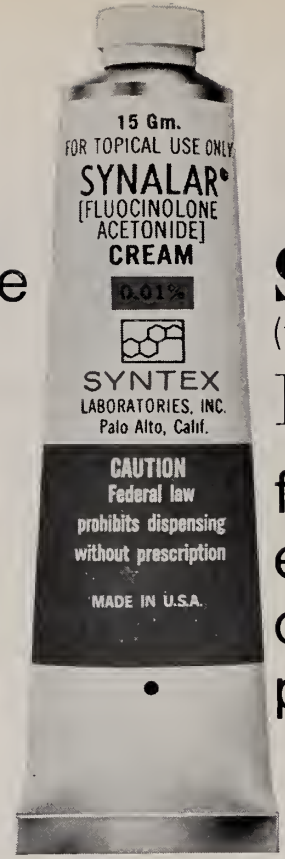

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In My Opinion . . .

The Obsolescence Of Medical Facts

In the medical field, rapid progress in basic research has resulted in obsolescence of certain concepts within as short a period as ten years. The medical graduate during hospital training as at the peak of his acquired spectrum of facts and theories. He is pushed by questions of those above him and those below him to keep informed. Unless contact with his colleagues is maintained and he reads more than the advertising leaflets in the daily mail, he will lose the fine edge of his desire for new knowledge and his skill in assessing the validity of new material. Superficiality of knowledge, as applied to the patient, may prove actually harmful. The complications of ill advised medications are becoming too numerous to be overlooked. Adequate testing and reporting of results on the use of new methods and the conscientious scrutiny of this work by the practicing doctor will assure the patient of the best care available.

How does the recent graduate maintain his hard won skills? Self-education by reading, attendance at rounds, conferences, meetings and refresher courses on a regularly planned basis will update individual competence. The public is awakening to the necessity and desirability of newer techniques, as reflected in its choice of physicians and hospitals. Hospital staffs are increasingly aware of this responsibility. There must be practical interchange of ideas and knowledge at the community level to reach the busy physician. The use of radio, television and visiting consultants for continuing medical education is on the up-swing. Each man in his own office and in his own hospital must continuously advance the quality as well as the quantity of medical service to the public. The teaching centers and medical schools have the responsibility to make available to neighboring areas an increasing number of consultative and teaching services.

MARY DEWITT PETTIT, M.D.
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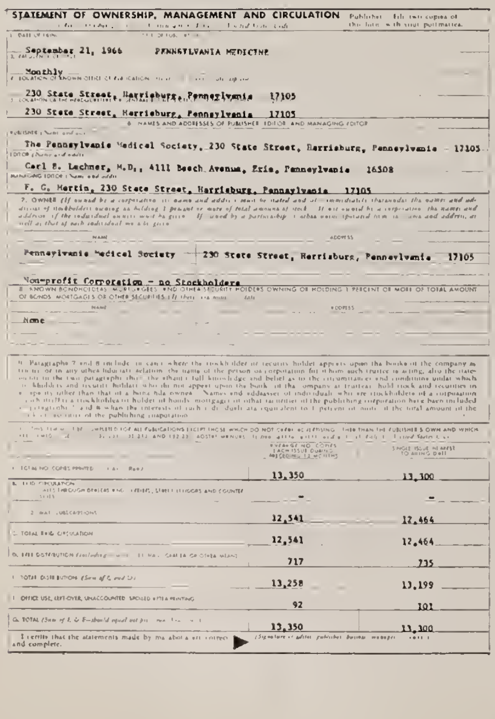

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" 'My wife asked if I was going bowling and I said no, because it really didn't make sense to knock over pins with a ball for hours on end. I said I'd rather go downtown and look at people. I did and it made me a little sad the way nobody looks in your eyes. But I was very excited to see how many different kinds of people there are—old, young, rich, poor. Every single one of them different! I went home, kissed my wife, played happily with my children and went off to sleep without a sedative.'

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Exerpted from a past edition of the *San Francisco Chronicle* column by humorist Arthur Hoppe. F. G. M.

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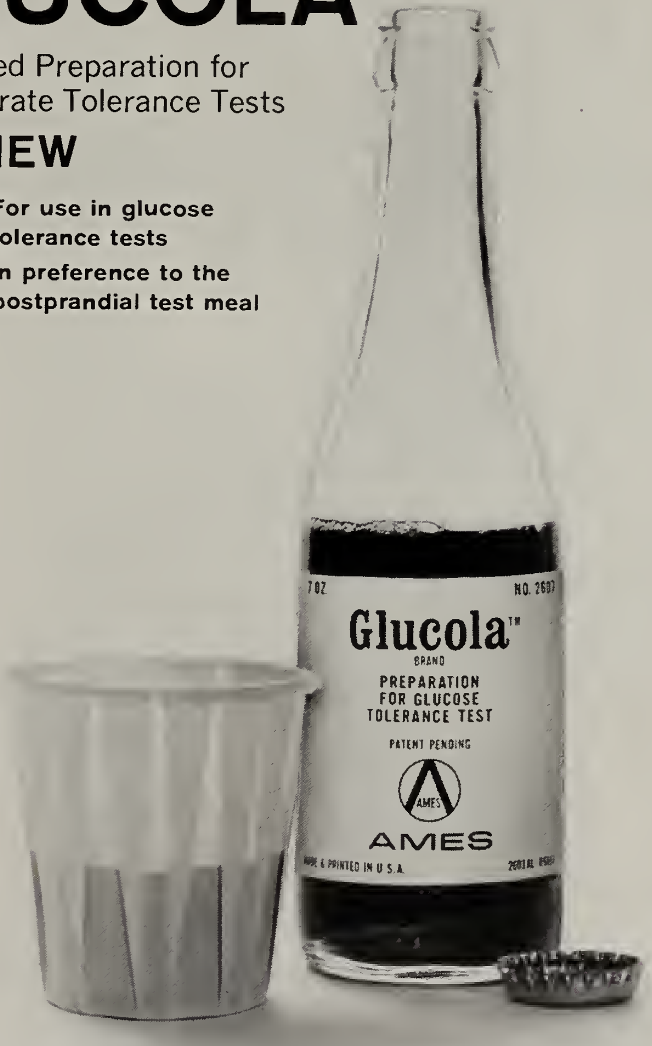

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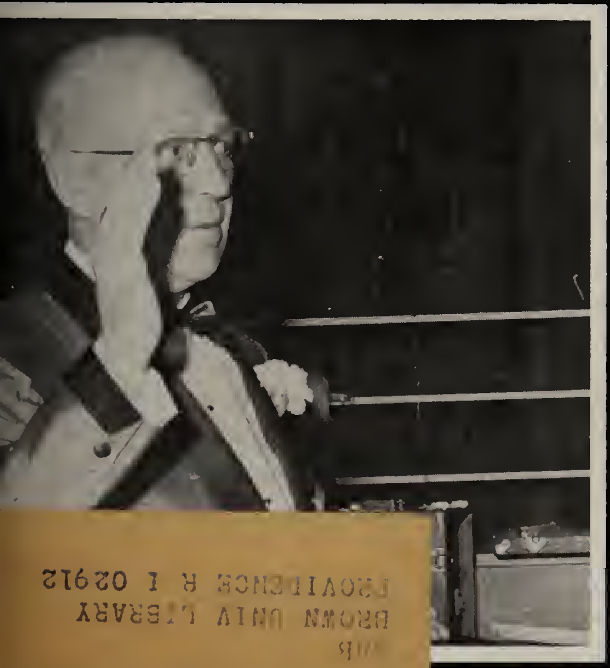

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IN THIS ISSUE:

CARDIAC RESUSCITATION

A Lancaster General Hospital's "Code Blue" Cart Team greatly improves rate of success with cardiac arrest patients.

CONTROVERSY IN TODAY'S MEDICAL EDUCATION

Dean of The Hershey Medical Center isolates current problems and poses possible solutions.

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are red...

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color, shape,
or size...

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News
HIGHLIGHTS

DECEMBER, 1966

PHYSICIAN'S RETIREMENT PROGRAMS GIVEN BOOST

■ An amendment to the Keogh Act passed both Senate and House. The amendment will permit physicians and other self-employed individuals an income tax deduction for the full amount of funds, up to 2,500 per year, set aside in approved retirement programs.

The Keogh Act changes, unable to pass on their own merits, were introduced and agreed upon by the legislature as part of the Foreign Investment Tax Act of 1966 (H.R. 13103).

Effective date of the new provision is January 1, 1968.

HOSPITAL MANPOWER SHORTAGES PINPOINTED

■ The Public Health Service and the American Hospital Association noted in a preliminary report last month that the nation's hospitals need 275,000 additional professional and technical health workers immediately if optimum patient care is to be a reality.

The nursing field is the area of most serious shortage with 80,000 more professional nurses and 40,000 practical nurses needed. Shortages noted in other categories include: 50,000 more medical aides for general hospitals and 30,000 more for psychiatric hospitals; 9,000 more medical technologists; nearly 7,000 more social workers; and 4,000 more each of physical therapists, x-ray technologists, and surgical technicians.

Additional reports are soon to be released which will include state and regional breakdowns as well as information from an additional 1,200 hospitals. The above preliminary figures are based on inquiry returns from 4,600 hospitals of 7,100 queried and were featured in the November 21 issue of **Washington Report on the Medical Sciences.**

PENNSYCARE COST–COVERAGE UP, UP

■ Pennsycare, the State version of medical assistance to public assistance recipients and to low and moderate income families defined as "medically indigent" will need an additional $25 million in the next fiscal year.

Services demanded by the Federal government in order for the State to continue qualifying for Federal funds—and not now provided—are:

- Payment of doctors' bills for services rendered in the hospital, home, office or "anywhere"
- "Skilled" nursing home care
- Laboratory and x-ray services to patients not admitted to hospitals
- Outpatient clinic services

Also, the State must pay for reasonable costs of hospital care in place of the $25.00 maximum now paid.

July 1, 1967 is the target date for the mandated inclusion of the additional benefits.

ALCOHOLISM, DRUG CONTROL TO BE TWO SEPARATE DIVISIONS

■ The state Health Department has established separate divisions to direct its alcoholism and drug control programs. The action was approved by the Executive Board on December 1st.

Replacing the Division of Behavioral Problems and Drug Control, now abolished, will be the Division of Alcoholic Studies and Rehabilitation, and the Division of Drug Control.

$8.2 MILLION MATERNITY-RESEARCH-EDUCATION BUILDING PLANNED

■ Pennsylvania Hospital, Philadelphia, has announced plans for an $8.2 million, eight story combined obstetrics, research and education building.

The building, to be erected on the southwest corner of 8th and Spruce Streets, will be named the Preston Building in honor of Dr. Jonas Preston, a well-known obstetrician and City Councilman in the 19th century. The Preston Retreat (1866), later known as Preston Maternity Hospital, was affiliated with Pennsylvania Hospital in 1961, when its operations were moved to the 8th and Spruce Streets location.

The research section is to include research and clinical pathology laboratories and educational facilities to further studies in neonatalism, cancer, heart disease and other high priority efforts.

NEXT MONTH

PROCEEDINGS, 1966 HOUSE OF DELEGATES

Originally scheduled for publication in the December issue, the myriad details involved in a complete and accurate report of this most active session necessitated moving the publication date to the January 1967 issue.

CARDIOGENIC SHOCK

Criteria for the diagnosis of cardiogenic shock are presented, along with a scheme of management and clinical examples with special emphasis on hemodynamics.

to help restore and stabilize the intestinal flora

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TABLETS & GRANULES

for fever blisters and canker sores of herpetic origin

LACTINEX contains a standardized viable mixed culture of *Lactobacillus acidophilus* and *L. bulgaricus* with the naturally occurring metabolic products produced by these organisms.

LACTINEX was introduced to help restore the flora of the intestinal tract in infants and adults.[1,2,3,4]

LACTINEX has also been shown to be useful in the treatment of fever blisters and canker sores of herpetic origin.[5,6,7,8]

No untoward side effects have been reported to date.

Literature on indications and dosage available on request.

HYNSON, WESTCOTT & DUNNING, INC.

HW&D BALTIMORE, MARYLAND 21201

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References: (1) Siver, R. H.: CMD, *21*:109, September 1954. (2) Frykman, H. H.: Minn. Med., *38*:19-27, January 1955. (3) McGivney, J.: Tex. State Jour. Med., *51*:16-18, January 1955. (4) Quehl, T. M.: Jour. of Florida Acad. Gen. Prac., *15*:15-16, October 1965. (5) Weekes, D. J.: N.Y. State Jour. Med., *58*:2672-2673, August 1958. (6) Weekes, D. J.: EENT Digest, *25*:47-59, December 1963. (7) Abbott, P. L.: Jour. Oral Surg., Anes., & Hosp. Dental Serv., 310-312, July 1961. (8) Rapoport, L. and Levine, W. I.: Oral Surg., Oral Med. & Oral Path., *20*:591-593, November 1965.

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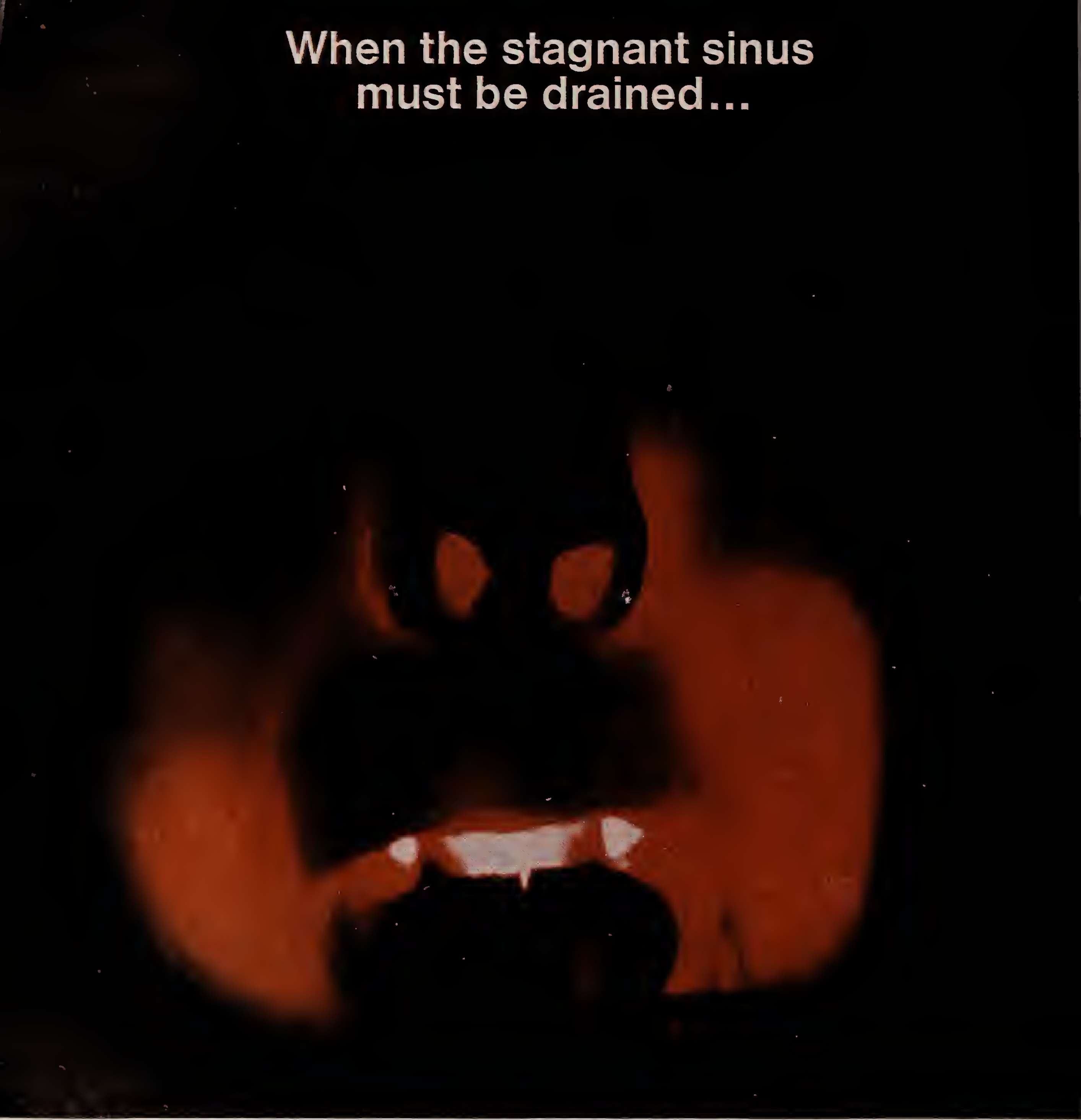

Transillumination of the sinuses—diffuse shadow on right side of face indicates unilateral maxillary sinusitis.

In the common cold, Neo-Synephrine is unsurpassed for reducing nasal turgescence. It stops the stuffy feeling at once. It opens sinus ostia to re-establish drainage and lessen the chance of sinusitis. With Neo-Synephrine, in the concentrations most commonly used, decongestion lasts long enough for extended breathing comfort, without endangering delicate respiratory tissue. Systemic side effects are virtually unknown. There is little rebound tendency.

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- 1% solution for adults (resistant cases)

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Antihistamine-decongestant

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FORMERLY THE PENNSYLVANIA MEDICAL JOURNAL

DECEMBER, 1966 VOLUME 69 NUMBER 12

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CARDIAC RESUSCITATION

John H. Esbenshade, Jr., M.D.

The organization and implementation of an effective cardiac resuscitation team favorably affected the mortality statistics from acute myocardial infarction. Page 31.

URETERAL INJURY

Harry E. Bacon, M.D.
W. Davy Smith, M.D.

Many kidneys can be salvaged through knowledge of the diagnosis and appropriate treatment of ureteral injuries. Page 36.

BRUCELLOSIS

Daniel L. Harris, M.D.
Charles M. Thompson, M.D.

Three cases of brucellosis occurring recently in the County of Philadelphia are described. Page 45.

RENAL COLIC

Emmett M. Cooper, M.D.

A more obscure sign of acute ureteral obstruction due to a calculus has recently been encountered. Page 49.

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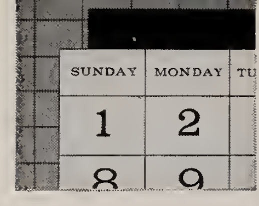


THIS MONTH

Allegheny General Establishes School

Allegheny General Hospital, Pittsburgh, has established a School of Neurologic Technology, the only such school in western Pennsylvania. The course of instruction includes practical experience in the laboratory as well as lectures in clinical neurology and theory and clinical pathologic demonstration.

New from Du Pont

Amantadine hydrochloride, a new oral medication for the prevention of Asian influenza, will be made available by du Pont under the trademark "Symmetrel."

This new preparation, by providing a molecular barrier to virus penetration, introduces an entirely new concept in antiviral medication, according to du Pont. Because of its ability to combat one of the most common forms of respiratory infection to be expected in winter, "Symmetrel" will be available on prescription by January 3, 1967.

"Symmetrel" may be particularly useful in high-risk patients, including the elderly, whether or not they have been previously vaccinated. "Symmetrel" is not indicated for the prevention of influenzal or respiratory illness other than Asian influenza.

Cancer Society Kudos, Election, Early Detection

■ Four state physicians were recently honored by the Pennsylvania Division, American Cancer Society, for their outstanding contributions to cancer control. Samuel P. Harbison, M.D., Pittsburgh, was given the national Bronze Medal Award of the American Cancer Society. Tracy L. Bryant, M.D., retired Washington, Pa., surgeon; T. S. Danowski, M.D., University of Pittsburgh School of Medicine; and Hugh R. Gilmore, Jr., M.D., Chief, Cancer Control Section, Pennsylvania Department of Health, were each presented the Sword of Hope Award, highest individual honor given by the Pennsylvania Division of the Society.

■ A Pittsburgh surgeon, David W. Clare, M.D., was elected president of the Pennsylvania Division of the Society recently. Dr. Clare, who is cancer coordinator and clinical associate professor of surgery at the University of Pittsburgh School of Medicine, has served with the ACS for over fifteen years.

■ A newspaper, radio and television campaign to persuade people to talk to their physicians about colon and rectum cancer and the proctosigmoidoscopic detection examination was initiated last month by the Pennsylvania Division of the ACS.

Dr. Daniel H. Bee (left), of Indiana, Pa. was awarded Honorary Life Membership to the PaMPAC Board of Directors. Dr Robert F. Beckley, chairman of PaMPAC's Board of Directors, made the presentation in recognition of Dr. Bee's many years of service, including his efforts to help found the political action movement.

Blue Shield Promotions

J. Arthur Daugherty, M.D., Harrisburg internist, has been elected to the newly-created position of Chairman of the Board of Directors of Pennsylvania Blue Shield and Matthew K. Gale of Camp Hill has been elected President of the state-wide pre-payment health plan.

Both elections, voted by the Blue Shield Board of Directors, followed adoption of changes in the by-laws by Members of the Corporation at a recent special meeting held in Harrisburg.

For the past 21 years, Dr. Daugherty has been President of Pennsylvania Blue Shield, having been elected in 1945, a year after he became a Director. Mr. Gale has been Executive Vice President since 1962. The position of Executive Vice President has been eliminated in the present reorganization of the corporation.

Dr. Daugherty is Chief of Medical Service at Harrisburg Hospital, where he also serves as Clinical Professor of Medicine of Hahnemann Medical College, Philadelphia. He is a Fellow of the American College of Physicians and the American College of Chest Physicians. He has served as President of both the Dauphin County Medical Society and the Harrisburg Academy of Medicine. He received his Doctor of Medicine degree from Jefferson Medical College, Philadelphia, in 1928.

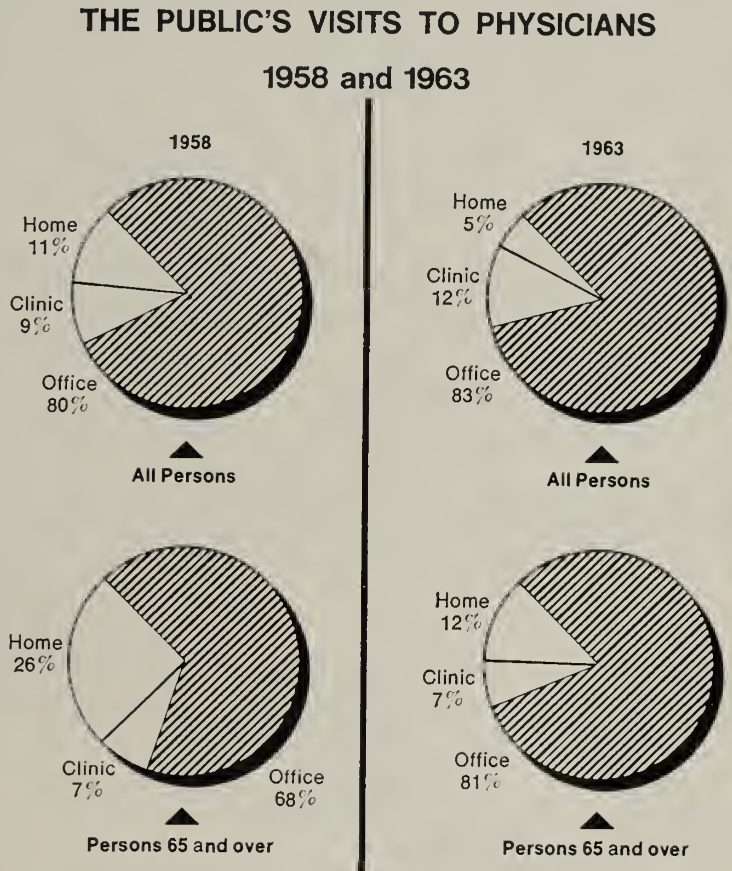
A Past President of the National Association of Blue Shield Plans, with headquarters in Chicago, Dr. Daugherty currently is serving as a Director and Chairman of the By-Laws committee. He also is Chairman of the Board of Medical Indemnity of America, Inc.

Mr. Gale joined Pennsylvania Blue Shield in 1946 as Assistant Director. For seven years he served as Senior Administrative Vice President, prior to being elected Executive Vice President in 1962.

A native of Philadelphia, Mr. Gale is a graduate of the Wharton School of the University of Pennsylvania. He is a member of both the Governor's Hospital Study Committee and the Citizens Committee to Study Insurance Laws.

Nationally, Mr. Gale serves as a Director of both the National Association of Blue Shield Plans and the Medical Indemnity of America, Inc. He also is a member of the Joint Administration Committee of MIA and Health Service, Inc., Chicago.

Home Visits By Physicians Down 6% Over A 5-year ('58-'63) Span



Source: Health Information Foundation

Chart: Health Insurance Institute

Examining the first medicare checks issued by Pennsylvania Blue Shield for medical insurance beneficiaries are (from left): Matthew K. Gale, President; Lee A. Young, Group Director—Medicare, and J. Arthur Daugherty, M.D., Chairman of the Board of Directors. The first check was issued to W. J. McGuigan, M.D., 273 South River Street, Wilkes-Barre, who performed surgery for Mrs. Mary Levichuk, 76 St. Marys Street, Plains, Pennsylvania.

How long will it take her to recover from her hip fracture if she just doesn't care?

Does she really care? Is she alert, encouraged, positive and optimistic about getting completely well soon?

Or has she given in to the demoralizing impact of confinement, disability and dependency?

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Pleasant-tasting Alertonic is pipradrol hydrochloride—an effective cerebral stimulant whose gentle analeptic action helps counteract the apathy and inertia that can often delay convalescence—together with an excellent vitamin and mineral formula, in a satisfying 15% alcohol vehicle.

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Adequate dosage is important: Prescribe Alertonic—one tablespoonful t.i.d., 30 minutes before meals...tastes best chilled.

And for your patient's sake, prescribe Alertonic in the convenient, economical one-pint bottle.

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Each 45 cc. (3 tablespoonfuls) contains: alcohol, 15%; pipradrol hydrochloride, 2 mg.; thiamine hydrochloride (vitamin B$_1$) (10 MDR*), 10 mg.; riboflavin (vitamin B$_2$) (4 MDR), 5 mg.; pyridoxine hydrochloride (vitamin B$_6$), 1 mg.; niacinamide (5 MDR), 50 mg.; choline,† 100 mg.; inositol,† 100 mg.; calcium glycerophosphate, 100 mg. (supplies 2% MDR for calcium and for phosphorus) and 1 mg. each of the following: cobalt (as chloride), manganese (as sulfate), magnesium (as acetate), zinc (as acetate), and molybdenum (as ammonium molybdate).

*Multiple of adult Minimum Daily Requirement supplied.
†The need for these substances in human nutrition has not been established.

Indications: 1. Functional fatigue such as that often associated with: a depressing life experience or stressful time of life; advancing years; convalescence; limited activity or confinement. 2. Poor appetite and vitamin-mineral deficiency as they occur in: patients having faulty eating habits; geriatric patients who are losing interest in food; patients convalescing from debilitating illness or surgery.

Dosage: Adults, 1 tablespoonful; children (over 15 years old), 1 to 2 teaspoonfuls; children (4 to 15 years old), 1 teaspoonful. To be taken three times daily 30 minutes before meals.

Contraindications: As with other drugs with CNS stimulating action, Alertonic is contraindicated in hyperactive, agitated or severely anxious patients and in chorea or obsessive compulsive states.

Side effects: Reports of overstimulation have been rare. Patients who are known to be unduly sensitive to the effects of stimulant drugs should be observed carefully in the initial stages of treatment.

Merrell

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Delaware Valley Area Participates in Pelvic Cancer Control Program for Women

Four prominent clergymen issued a joint recommendation recently that women of the Delaware Valley area participate in the Pelvic Cancer Control Program for women at the Thomas M. Fitzgerald Mercy Hospital, Darby, Pennsylvania. The clergymen, Rev. William L. Bentley, President, Baptist Ministers' Conference of Philadelphia and Vicinity; Rev. Jerry E. Carpenter, Director, Community Services Department, Greater Philadelphia Council of Churches; Rev. Terrence F. Monihan, Assistant Chancellor, Roman Catholic Archdiocese of Philadelphia and Rabbi Harold B. Waintrup, President of the Board of Rabbis, emphasized the program is non-sectarian, supported by a five-year grant of $274,837.00 from the U. S. Public Health Service, Department of Health, Education and Welfare.

The program is unique in that it is financed with the first grant of its kind made in the Philadelphia area by the President's Commission on Heart Disease, Cancer and Stroke. Specially trained personnel have been obtained to execute the program which is under the direction of Dr. Larry McGowan, the hospital's director of obstetrics and gynecology and assistant professor of obstetrics and gynecology at Hahnemann Medical College and Hospital.

The program calls for the diagnosis, treatment and follow-up care of women with cancer of the reproductive organs. The Pap smear and other newer techniques for the detection of cancer will be employed. The program will make available to women all the new forms of therapy used in the control of cancer.

Women can be referred to the Pelvic Cancer Control Program by their family physician or make inquiries on their own. Appointments by all interested women can be made by calling LUdlow 6-2565. Specially trained receptionists will handle inquiries and disseminate information.

The program began Tuesday, September 13, 1966 and is scheduled to operate Monday through Friday of each week.

FDA Guidelines

James L. Goddard, M.D., Commissioner of Food and Drugs, announced recently that physicians will be required to obtain the written consent of patients for the use of investigational drugs except in unusual circumstances. "The provision that patients must give their consent, with certain exceptions, to the use of experimental drugs has been a matter of law since 1962," Dr. Goddard said. "There is an apparent need, however, for specific guidelines on how that consent is to be obtained and what exceptions are allowed."

The Kefauver-Harris Drug Amendments of 1962 provided that physicians using investigational drugs on humans must "obtain the consent of such human beings or their representatives, except where they deem it not feasible or, in their professional judgment, contrary to the best interests of such human beings." Investigational drugs are new pharmaceuticals that have not yet been demonstrated to be safe and effective and approved for general use by the Food and Drug Administration.

In addition to requiring that the patient give his consent in writing, the guidelines provide that the patient must have the legal capacity and freedom of choice to give consent, and that he must be given the necessary information about the investigational drug. This information must include the purpose of the drug; the duration and method of use; hazards expected (including the fact that the patient may be used as a control); alternative therapy available, if any, and possible effects upon his health.

Urges Higher Standards

Although $350 million was spent on drug research last year—up $100 milion from the 1955 total—the rate of research failure was extremely high.

So says George R. Cain, chairman of the Pharmaceutical Manufacturers Association, quoted in *Physician's Management.*

The failure trend "doesn't seem likely to be reversed," said Mr. Cain, due to the fact that the drug industry is seeking new, more highly sophisticated agents in more complex fields such as those of cancer and the cardiovascular ailments.

Further complicating the problem is the fact that stringent standards lengthen the time required for placing a new product on the market.

Hershey Contracts

Contracts totaling $3,123,944 for the second phase of construction at The Milton S. Hershey Medical Center of The Pennsylvania State University were signed on September 14 by officials of the Hershey Trust Company.

The contracts cover construction and outside site work for a boiler plant and underground tunnel that will furnish heating, air conditioning and refrigeration to the Medical Science Building, Teaching Hospital and Animal Research Farm.

Besides easing the operation and maintenance of the utilities, the tunnel portion will serve a unique purpose. One side of this 1400-foot long passageway, the Dean explained, will connect the Animal Research Farm to the central animal facility in the basic science wing of the Medical Science Building. "This will permit transporting of animals in all kinds of weather under controlled environmental conditions for the comfort of the animals," Dr. Harrell said. This also will help to produce the highest quality and efficiency in the teaching and research program involving animals. Dr. Harrell said that, as far as he can determine, The Hershey Medical Center will have the only medical school in the world with an Animal Research Farm within walking distance of its classrooms and teaching laboratories.

Counting previous excavation and construction contracts for the Basic Science Wing, the total amount of contracts let to date for the Medical Center is $11,471,444. Additional contracts for the Animal Research Farm, the clinical science wing of the Medical Science Building and the Teaching Hospital will follow. The hospital, the last construction phase, will open in 1969.

Dr. Harrell said that the final cost of currently planned facilities will be more than $40 million. The U.S. Public Health Service has made a grant of $10,210,000 toward construction of the Medical Science Building and boiler plant.

Postgraduate Courses

ALLENTOWN

At Allentown Hospital, 10 A.M.–1 P.M. on dates specified; each 3 hours AAGP:

Pathology Seminars, Temple University department of pathology, and Lehigh AAGP, at Allentown Hospital, Mondays, September–June, 7:30 P.M.; 20 hours AAGP. Contact Allentown Hospital Association, Seventeenth and Chew Streets (18102).

Edema as a Symptom,* December 8.

Edema: Intractable Heart Failure,* at Allentown Hospital, January 12, 1967, from 10:00 A.M. to 1:00 P.M.; 3 hours AAGP.

ALTOONA

Lymphangiography: Technique and Clinical Value,* at Altoona Hospital, January 19, 1967, from 10:00 A.M. to 12:30 P.M.; 2 hours AAGP.

A Consecutive Case Conference—The Patient with a Gastric Resection,* at Altoona Hospital, January 5, 1967, from 10:00 A.M. to 12:30 P.M.; 2 hours AAGP.

FRANKLIN

A Course in Vector-Electrocardiography, Westmoreland Hospital and Westmoreland County AGP, at Westmoreland Hospital, Greensburg, Pa.; Eighteen Tuesday evenings from 7 to 9 P.M., as follows: October 11, 18, 25; November 8 and 29; December 13 and 20; January 10, 17, 24 and 31, 1967; February 14, 1967; March 14, 21 and 28, 1967; April 11, 18 and 25, 1967; AAGP 36 hours; Contact Arthur J. McStein, M.D., Westmoreland Hospital.

HARRISBURG

Medical Lectures, Harrisburg Polyclinic Hospital and University of Pennsylvania School of Medicine, at Polyclinic, November 22, February 28, March 28, and April 25, 10 A.M.–1 P.M.; 5 hours AAGP. Contact G. F. Zerbe, M.D., 1822 Market Street, Camp Hill 17011.

JOHNSTOWN

Steroid Therapy for Arthritis, Jefferson Medical College and Pennsylvania State University, at Conemaugh Valley Memorial Hospital, Johnstown, Pa.; December 22, 1966; 7 to 9 P.M.; AAGP 2 hours; Contact John H. Killough, M.D., Jefferson Medical College, 1025 Walnut Street, Philadelphia.

LANCASTER

The Diagnostic Dilemma of Rheumatic Fever, Lancaster General Hospital Auditorium, Lancaster, December 14, 1966, 11:00 A.M. to 1:30 P.M.; AAGP accreditation, category 1. Contact Henry W. Miller, M.D., Lancaster General Hospital, Lancaster 17602.

Review of Fluid-Volume Problems and Acid-Base Disorders, St. Luke's Hospital, Bethlehem, December 15, 1966, 9:30 A.M. to NOON; 3 hours AAGP. Contact Newton O. Cattell, University Park, Pa.

Bedside Diagnosis of Heart Disease, Mercy Hospital, Scranton, December 21, 1966, 9:30 A.M. to NOON; 2 hours AAGP. Contact Newton O. Cattell, University Park, Pa.

The Basis of Physiologic Therapy in Respiratory Problems, Lancaster General Hospital, Lancaster, January 11, 1967, 11:00 A.M. to 1:30 P.M.; AAGP accreditation, category 1. Contact Henry W. Miller, M.D., Lancaster General Hospital, Lancaster 17602.

PHILADELPHIA

Adrenal Gland, Jefferson Medical College and Pennsylvania State University, at Jefferson Medical College; Seven consecutive Tuesday evenings from 8 to 10 P.M., January 10, through February 21, 1967; AAGP 14 hours; Fee $40.00; Contact John H. Killough, M.D., Jefferson Medical College, 1025 Walnut Street, Philadelphia, Pa. 19107.

Bedside Diagnosis of Heart Disease, Hahnemann Medical College, at Warwick Hotel, Philadelphia; January 11-13, 1967; 9 A.M. to 5:30 P.M.; 9 A.M. to 6 P.M.; and 9 A.M. to 5 P.M.; AAGP 25½ hours; Contact Bernard L. Segal, M.D., Hahnemann Medical College, 230 North Broad Street, Philadelphia, Pa. 19102.

Advanced Electrocardiography, Albert Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa.; Wednesdays, February 15 to April 19, 1967; 1 to 4 P.M.; AAGP 30 hours; Contact Mr. Leonard J. Zimet, Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa. 19141.

Bronchoesophagology, Drs. Charles M. Norris and Gabriel F. Tucker, Jr., November 28–December 9, 1966, and April 3–14, 1967; fee, $250. Contact Chevalier Jackson Clinic, Temple University Hospital, 3401 North Broad Street (19140).

Management of the Patient With Skeletal Trama: Surgical Management of Thoracic and Abdominal Trama, at Altoona Hospital; December 15, 1966; 10:00 A.M. to 12:30 P.M.; AAGP 2 hours; Contact John H. Killough, M.D., 1025 Walnut Street, Philadelphia 7, Pa.

Microsurgery of the Temporal Bone, Temple University School of Medicine, first week of each month. Contact B. J. Ronis, M.D., Temple.

Applied Office Psychiatry and Psychosomatic Medicine, departments of psychiatry, internal medicine, obstetrics-gynecology, and pediatrics, Temple University Medical Center, at Temple University Sciences Center, Wednesdays, October 5 through February 22, 10 A.M.–3 P.M.; 80 hours AAGP. Contact H. K. Fischer, M.D., 3401 North Broad Street (19140).

Bedside Diagnosis—Part IV, Hahnemann Medical College and Hospital, Philadelphia, January 11–13, 1967. Contact Bernard L. Segal, M.D., Hahnemann Medical College, Philadelphia.

General Internal Medicine, Hahnemann Medical College and Hospital, Wednesdays, October 5, 1966–March 29, 1967, 1–4 P.M.; 24 hours AAGP. Contact Drs. D. Mason, W. W. Oaks, and S. R. Bender, 230 North Broad Street (19102).

Radiology and Radioisotopes, Albert Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa.; Wednesdays, March 15 to April 12, 1967; 2 to 4 P.M.; AAGP 10 hours; Contact Leonard J. Zimet, Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa. 19141.

Psychiatry and General Practice, Einstein Medical Center, York and Tabor Roads; Fridays, January 6 to April 14, 1967; 1:30 to 4:30 P.M.; AAGP 45 hours; Contact Leonard J. Zimet, Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa. 19141.

Clinical Endocrinology, Albert Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa.; Wednesdays, February 8 to April 26, 1967; 2 to 5 P.M.; AAGP 36 hours; Contact Mr. Leonard J. Zimet, Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa. 19141.

PITTSBURGH

Seminars on Psychological Aspects of Medical Practice, University of Pittsburgh School of Medicine, at Staunton Clinic, December 14, 22, 10 A.M.–12 M. Contact R. A. Pittenger, M.D., 3601 Fifth Avenue (15213).

Infectious Diseases. University of Pittsburgh School of Medicine and Medical Center, Pittsburgh, Pa. December 14-17, 1966.

POTTSVILLE

Convulsive Disorders in Children,* at Pottsville Hospital, January 12, 1967, from 11:30 A.M. to 2 P.M.; 2 hours AAGP.

READING

Liver Diseases and Miscellaneous Subjects, Hahnemann Medical College, at Community General Hospital, Wednesdays, September through May, 9:30 A.M. Contact E. L. Trexler, M.D., 15 South Franklin Street, Fleetwood 19522.

Continuing Medical Education Program, Berks County Medical Society and AGP, at Reading Hospital; December 7, 1966; January 11, February 1, March 1, April 5 and May 3, 1967; AAGP 32 hours; Contact A. A. Nagle, M.D., Stouchsburg, Pa.

SCRANTON

Bedside Diagnosis of Heart Disease. Mercy Hospital, Scranton, Pa. 9:30 A.M.-noon, December 21, 1966, 2 hours AAGP. *

Current Considerations in the Management of Vaginitis and Vulvar Disease, December, 15.

WILLIAMSPORT

At Williamsport Hospital, 10 A.M.–3 P.M. on dates specified; each 4 hours AAGP:

Ocular and Neurological Manifestations of Systemic Disease,* December 21.

YORK

At York Hospital, 8 A.M.–12 M. on dates specified; fee, each course, $8.00; AAGP credit, each course, 3 hours: *

Review of Skin Grafting and Present Concepts of Tissue Transfer,* at York Hospital, January 5, 1967, from 8:00 A.M. to noon; Fee $8.00, 3 hours AAGP.

Let's Take a New Look at Tonsillectomies,* at York Hospital, January 12, 1967, from 8:00 A.M. to NOON; Fee $8.00, 3 hours AAGP.

• **About This Section:** To be publicized, courses must be one-half day (three hours) or more in length, designed for licensed doctors of medicine, and of interest to physicians in an area of several counties or more. Information must be received by the first day of each month, to appear the following month. Each item will appear no more than four times. Address: Commission on Medical Education, Taylor By-Pass and Erford Road, Lemoyne 17043.

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Meetings

DECEMBER

American College of Physicians Regional Meeting, Philadelphia, Pa. Contact Truman G. Schnabel, Jr., M.D., ACP Governor, Philadelphia General Hospital, 34th and Curie Ave., Philadelphia, Pa. December 1, 1966.

Air Pollution, Sheraton-Park Hotel, Washington, D. C., National Conference on Air Pollution sponsored by Public Health Service, Department of Health, Education and Welfare. December 12-14, 1966.

Medical Research Conference, Netherland Hilton Hotel, Cincinnati, Ohio. Sponsored by the Veterans Administration. November 29-December 1, 1966.

Rheumatic Fever and Congenital Heart Disease Committee Meetting, State Office, Harrisburg, Pennsylvania Heart Association, December 8, 1966.

JANUARY

National Congress on the Socio-Economics of Health Care, Chicago, January 22-23.

American College of Surgeons sectional meeting, Del Coronado Hotel, San Diego, California, January 23-25.

Cardiac Clinic Committee Meeting, Pennsylvania Heart Association, State Office, Harrisburg, January 18.

Society for Cryo-Ophthalmology annual clinical meeting, Dunes Hotel, Las Vegas, January 8-10.

FEBRUARY

Nineteenth Annual Clinical Conference of the Wills Eye Hospital, Bellevue Stratford Hotel, Philadelphia, February 9-11.

American College of Surgeons sectional meeting, Broadmoor Hotel, Colorado Springs, Colorado, February 15-17.

American College of Surgeons sectional meeting, Americana and New York Hilton Hotels, New York City, February 27-March 2.

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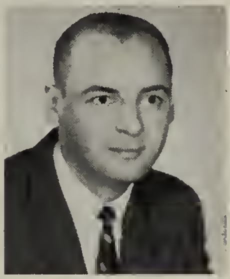
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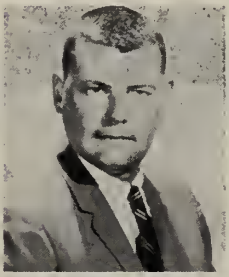
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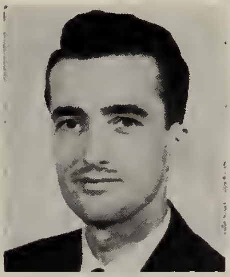
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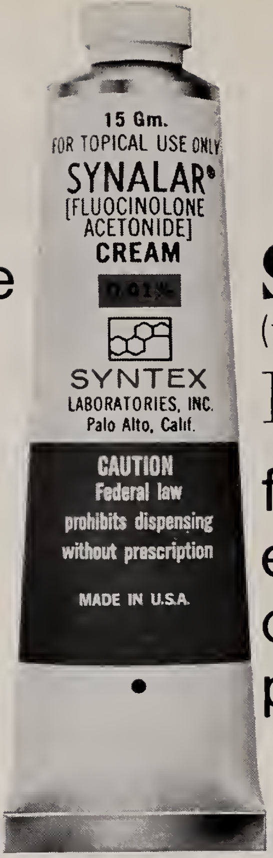

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have an adverse effect on pregnancy, the safety of their use on pregr
females has not absolutely been established. Therefore, they should no
used extensively on pregnant patients, in large amounts, or for prolon
periods of time. 2. *Occlusive dressing method*—With occlusion of exten
areas, systemic absorption of the corticosteroid may occur, and suit
precautions should be taken. Occasional patients may show contact s
tivity to a particular dressing material or adhesive. Miliaria, folliculitis
pyodermas have been seen infrequently with the use of this technique.
development of infection requires appropriate antibacterial therapy and
continuation of the occlusive dressing method. Local atrophy and st
have been reported with protracted occlusive dressing therapy. While le
relapses can be expected to occur in many psoriatic patients, remiss
may persist for several weeks to several months in favorable cases.
patient whose psoriasis is in an active stage, with recent appearance of
lesions, may not be a good candidate and may show early relapse. S
plastic films may be flammable, and due care should be exercised in t
use. Similarly, caution should be employed when such films are used o
left near children to avoid the possibility of accidental suffocation.
Effects: Side effects are not ordinarily encountered with topically app
corticosteroids. As with all drugs, however, a few patients may react
vorably to Synalar under certain conditions. **References:** 1. Cahn, M. M.,
Levy, E. J.: J New Drugs 1:262 (Nov.-Dec.) 1961. 2. Meenan, F. O.: J
Med Ass 52:75 (Mar.) 1963. 3. Robinson, H. M., Jr., Raskin, J., and Duns
W. J. R.: Southern Med J 56:797 (Jul.) 1963.

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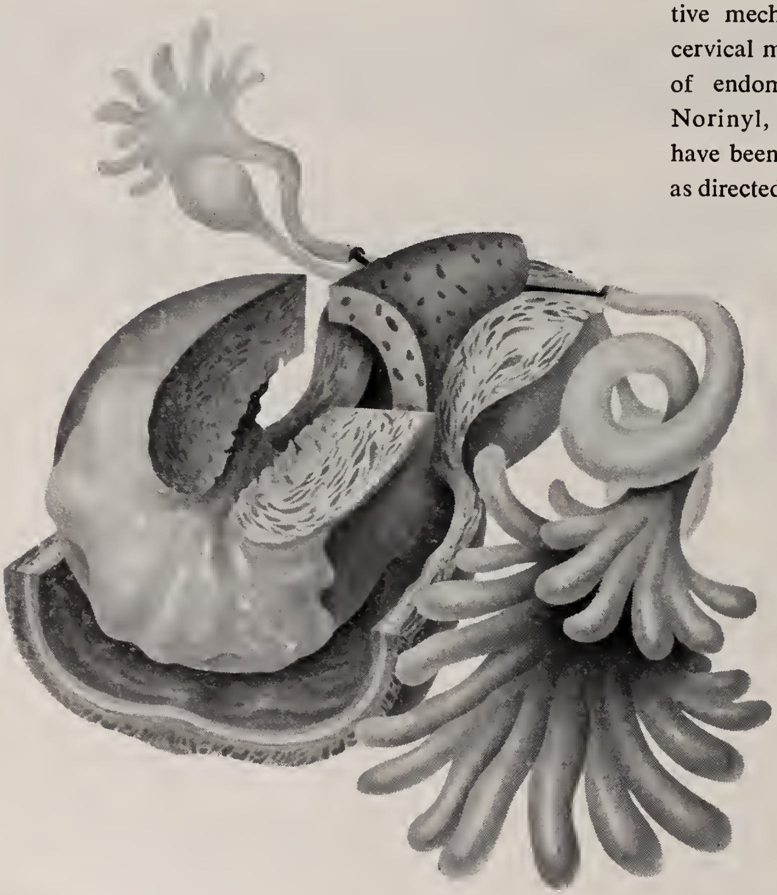

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plus important supportive benefits that help her through those critical early months of oral contraception

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An unbreakable "confusionproof" package makes it easy to adhere to prescribed dosage schedule: individually sealed tablets numbered from 1 through 20 *plus* monthly calendar record enables patient to double-check dosage intake by day and corresponding tablet number.

Contraindications: Thrombophlebitis or pulmonary embolism (current or past). Existing evidence does not support a causal relationship between use of Norinyl and development of thromboembolism. While a study which was conducted does not resolve definitively the possible etiologic relationship between progestational agents and intravascular clotting, it tends to confirm the findings of the Ad Hoc Advisory Committee appointed by the Food and Drug Administration to review this possibility. Cardiac, renal or hepatic dysfunction. Carcinoma of the breast or genital tract. Patients with a history of psychic depression should be carefully studied and the drug discontinued if depression recurs to marked degree. Patients with a history of cerebral vascular accident.

Warning: Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn.

Precautions: By May 1963, experience with norethindrone 2 mg.—mestranol 0.1 mg. had extended over 24 months. Through miscalculation, omission or error in taking the recommended dosage of Norinyl, pregnancy may result. If regular menses fail to appear and treatment schedule has not been adhered to, or if patient misses two menstrual periods, possibility of pregnancy should be resolved before resuming Norinyl. If pregnancy is established, Norinyl should be discontinued during period of gestation since virilization of the female fetus has been reported with oral use of progestational agents or estrogen. When lactation is desired, withhold Norinyl until nursing needs are established. Existing uterine fibroids may increase in size. In metabolic or endocrine disorders, careful clinical preevaluation is indicated. A few patients without evidence of hyperthyroidism had elevated serum protein-bound iodine levels, which in the light of present knowledge, does not necessarily imply hyperthyroidism. Protein-bound iodine increased following estrogen administration. Bromsulphalein retention has occurred in up to 25% of patients without evidence of hepatic dysfunction. Studies from 24-hour urine collections have shown an increase in aldosterone and 17-ketosteroids and decrease in 17-hydroxycorticoid levels. Thus, Norinyl should be discontinued prior to and during thyroid, liver or adrenal function tests. Because progestational agents may cause fluid retention, conditions such as epilepsy, migraine and asthma require careful observation. Thus far no deleterious effect on pituitary, ovarian or adrenal function has been noted; however, long-range possible effect on these and other organs must await more prolonged observation. Norinyl should be used with caution in patients with bone, renal or any disease involving calcium or phosphorus metabolism.

Side Effects: Intermenstrual bleeding; amenorrhea; symptoms resembling early pregnancy, such as nausea, breast engorgement or enlargement, chloasma and minor degree of fluid retention (if these should occur and patient has not strictly adhered to medication plan, she should be tested for pregnancy); weight gain; subjective complaints such as headache, dizziness, nervousness, irritability; in a few patients libido was increased. In a total of 3,090 patients, 2.2% discontinued medication because of nausea.

NOTE: See sections on contraindications and precautions for possible side effects on other organ systems.

Dosage and Administration: One Norinyl tablet orally for 20 days, commencing on day 5 through and including day 24 of the menstrual cycle. (Day 1 is the first day of menstrual bleeding.)

Availability: Dispensers of 20 and 60 tablets; bottles of 100.

References: **1.** Council on Drugs. JAMA 187:664 (Feb. 29) 1964. **2.** 8ryans, F. E.: Canad Med Ass J 92:287 (Feb. 6) 1965. **3.** Goldzieher, J. W.: Med Clin N Amer 48:529 (Mar.) 1964. **4.** Cohen, M. R.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965. **5.** Hammond, O. O.: Ibid. **6.** Rice-Wray, E., Goldzieher, J. W., and Aranda-Rosell, A.: Fertil Steril 14:402 (Jul.-Aug.) 1963. **7.** Goldzieher, J. W., Moses, L. E., and Ellis, L. T.: JAMA 180:359 (May 5) 1962. **8.** Kempers, R. D.: GP 29:88 (Jan.) 1964. **9.** Tyler, E. T.: JAMA 187:562 (Feb. 22) 1964. **10.** Rudel, H. W., Martinez-Manautou, J., and Maqueo-Topete, M.: Fertil Steril 16:158 (Mar.-Apr.) 1965. **11.** Flowers, C. E., Jr.: N Carolina Med J 25:139 (Apr.) 1964. **12.** Goldzieher, J. W.: Appl Ther 6:503 (June) 1964. **13.** The Control of Fertility. Report adopted by the Committee on Human Reproduction of the American Medical Association. JAMA 194:462 (Oct. 25) 1965. **14.** Flowers, C. E., Jr.: JAMA 188:1115 (June 29) 1964. **15.** Merritt, R. I.: Appl Ther 6:427 (May) 1964. **16.** Newland, O. O.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965.

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M.D.'s in The News

Edwin S. Shneidman, M.D. was appointed chief, National Institute of Mental Health Center for Studies of Suicide Prevention last month. In his new position, Dr. Shneidman will develop plans for a major national suicide prevention program emphasizing the prevention of suicide, research on the reasons for human self-destruction, and training of qualified individuals in the new profession of suicidology.

Egill Snorrason, M.D., noted Danish physician, spoke at Moss Rehabilitation Hospital, Philadelphia last month. Dr. Snorrason is physician-in-chief at the department of physical medicine and rehabilitation of the State Hospital in Copenhagen. His lecture was titled "Function of the Lumbar Spine."

Col. William D. Tigertt, M.D., Director of Walter Reed Army Institute of Research, was awarded the 1966 Gorgas Medal for developing tropical disease research in Southeast Asia. The Medal is presented annually by the Association of Military Surgeons in the United States and sponsored by Wyeth Laboratories. It honors Major General William Gorgas, whose public health measures controlled yellow fever and made possible the construction of the Panama Canal.

DR. TIGERTT

Dr. Erich A. Everts-Suarez, Philadelphia, recently attended the VI International Congress of Clinical Pathologists in Rome, where he presented a paper entitled "Osteogenic Sarcoma Occurring Simultaneously with a Transitional Cell Carcinoma in the Urinary Bladder."

Dr. Joseph B. Wolffe, medical director of the Valley Forge Medical Center and Heart Hospital, Norristown, and Wolffe Hospital, Philadelphia, was accorded knighthood by Archbishop George Hakim, head of the Greco-Catholic Church, for his efforts in organizing the American Foundation for the Restoration and Development of Nazareth.

Dr. Raul Fleischmajer, associate professor or medicine and head of the Section of Dermatology, Hahnemann Medical College and Hospital has been awarded a grant of $36,558 for research in biochemistry of extracellular proteins. The grant was made by the National Institute of Arthritis and Metabolic Diseases of the National Institutes of Health, United States Public Health Service.

Dr. Robert Haakenson, Community Relations Manager for Smith, Kline and French Laboratories, spoke on "By-Products of Community Involvement" at the 6th Annual Contributing Membership meeting of Tricounty Fountain Center, Lansdowne.

Dr. Gerald Litwack, research professor of biochemistry and senior investigator of the Fels Research Institute, was awarded a grant of $24,000 from the National Science Foundation for studies on the regulation of activities and synthesis of enzymes in mammalian tissue. The research will be done at the Temple University Health Sciences Center.

Carroll L. Witten, M.D., Louisville, Ky., was inaugurated president of the American Academy of General Practice recently. Dr. Witten is one of eight new officers elected at the closing session of the 1966 Congress of Delegates. The Congress is the governing body of the 30,000-member national family doctor organization.

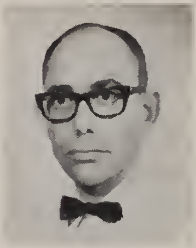
Harry E. Bacon, M.D., Philadelphia, delivered the presidential address at the meeting of the International Society of University Colon and Rectal Surgeons in Tokyo, Japan. He later participated in the inaugural ceremonies of the new section of Colon and Rectal Surgery of the Pan Pacific Surgical Association held in Honolulu, Hawaii.

Gerald L. Bartlett, M.D., has been named research associate of the Institute for Cancer Research, Philadelphia. At the Institute he will be working in the division of pathology with **Dr. Richard T. Prehn.** In his work he will be attempting to verify a non-immunological function of the thymus in chemical induction of cancer and to define the mechanisms of this function.

DR. BARTLETT

George B. Koelle, Ph.D., M.D., of the University of Pennsylvania, was the chairman of one of four sessions dealing with "Mind as a Tissue" sponsored by Lankenau Hospital, Philadelphia. Authorities from leading neurology-psychiatry centers of the English-speaking world gathered at Lankenau for this research conference and sixteen papers were presented by scientists from England, Canada and eight states.

David Kosow, M.D., has been appointed research associate in the biochemistry division of the Institute for Cancer Research, Philadelphia. He will be working with **Irwin A. Rose, M.D.,** in research to determine the various factors involved in the regulation of glucose utilization.



DR. KOSOW

Victor F. Greco, M.D., Hazleton, has been elected a Fellow of the International College of Surgeons and recently returned from a convention held by the college in Mexico City, Mexico, D.F.

Henry P. Schneider, V.M.D., director of the Biological Research Laboratories at Hahnemann Medical College and Hospital, and a founder of the Federated Medical Resources, Inc., was guest speaker at the Honeybrook Grange meeting recently. He explained the plans which the new corporation has for the development of a research animal center at Honeybrook. He spoke on behalf of the five Philadelphia medical colleges who recently united to form this non-profit corporation.

Henry T. Wycis, M.D., spoke on "Head Trauma" at the Grenfell Mission in Saint Anthony, Newfoundland, and on "Extra-Pyramidal Diseases" at the Western Society of Medicine in Corner Brook, Newfoundland.

John F. Huber, M.D., has been re-elected president of the Audio Visual Conference of Medical and Allied Sciences at its meeting in Washington, D.C.

Drs. Samuel Ajl, Herman Friedman, Morton Klein, Alois H. Nowotny and **Earle H. Spaulding** attended the IX International Congress for Microbiology in Moscow.

Paul R. Sieber, Sr., M.D., Pittsburgh, was a guest of honor of the medical staff of Mercy Hospital on Mercy Day.

William A. Sodeman, M.D., dean and vice-president for medical affairs at Jefferson Medical College and Medical Center, has been elected president of the Heart Association of Southeastern Pennsylvania.

Kenneth Shulman, M.D., Bala-Cynwyd, director of neurosurgery at Children's Hospital and associate professor of neurosurgery at the University of Pennsylvania, will direct a study of intracranial pressure relationships at Children's Hospital. The project is being made possible by a $48,000 grant from the National Institutes of Neurological Diseases and Blindness.

Nancy N. Huang, M.D., director of the cystic fibrosis and microbiology laboratory at St. Christopher's Hospital for Children, Philadelphia, received the second annual "Sharing and Caring" award from the Board of Lady Visitors and Women's Auxiliaries of St. Christopher's recently.

R. Robert Tyson, M.D., professor of surgery and head of vascular surgery at Temple University Health Sciences Center, has been named vice-president of the Philadelphia County Medical Society.

Norman Wall, M.D., Pottsville, was honored at the annual meeting of the Pennsylvania Heart Association, when he was presented with the Outstanding Service Award for distinguished service to the organization since its inception.

Eugene R. Kutz, M.D., has been appointed head of the department of radiology at the Bedford County Memorial Hospital.

Capt. Harry H. Dinsmore, M.D., Punxsutawney, who is presently serving in Vietnam, has received widespread publicity for an operation performed upon a Vietnamese soldier, in which he removed a live mortar shell from the youth's body.

Robert J. Bietel, Jr., M.D., Allentown, was elected 3rd Vice President of the American Association of Ophthalmology at its meeting recently.

Donald A. Nagel, M.D., Wynnewood, has been named associate professor of orthopedic surgery and head of the section of orthopedic surgery at Hahnemann Medical College and Hospital.

Bernard Sandler, M.D., spoke on "Myoelectric Control of an Upper Extremity Prosthesis" before the Swiss Committee on Rehabilitation and the Swiss Society of Physical Medicine in Zurich.

R. D. Harley, M.D., has been elected vice chairman of the section in ophthalmology of the American Medical Association. He, with **Drs. Henry** and **Elizabeth Muffett,** presented a paper, "Ataxia-Telangiestasia" before the section at AMA convention.

George S. Klump, M.D., Williamsport, was recently honored by the University of Pennsylvania Hospital, when two new cardiovascular laboratories were named for him.

Mayer A. Green, M.D., Pittsburgh, participated in the National Allergy Seminar and traveled throughout Europe, arriving in Dublin, Ireland in October.

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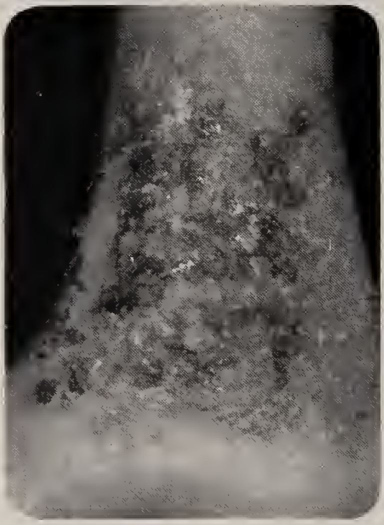
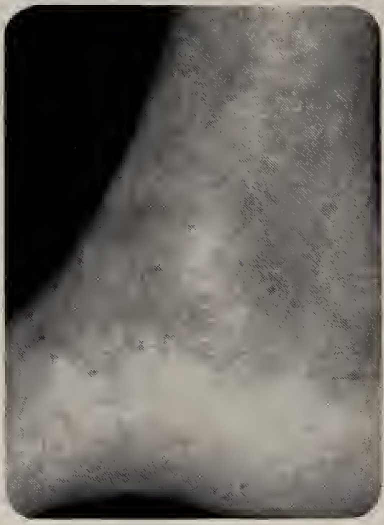
Eczema of many years...
controlled in two weeks



Before treatment



After treatment—
with ARISTOCORT Topical
Ointment 0.1% for two weeks

ARISTOCORT® Triamcinolone Acetonide Topicals have proved exceptionally effective in the control of various forms of eczema: allergic, atopic, nummular, psoriatic, and mycotic.

In most cases responsive to topical ARISTOCORT, the 0.1% concentration is sufficiently potent. The 0.5% concentration provides enhanced topical activity for patients requiring additional potency for proper relief.

Administration and Dosage: Apply sparingly to the affected area 3 or 4 times daily. Some cases of psoriasis may be more effectively treated if the 0.1% Cream or Ointment is applied under an occlusive dressing.

Contraindications: Tuberculosis of the skin, herpes simplex, chicken pox and vaccinia.

Precautions and Side Effects: Do not use in the eyes or in the ear (if drum is perforated). A few individuals react unfavorably under certain conditions. If side effects are encountered, the drug should be discontinued and appropriate measures taken. Use on infected areas should be attended with caution and observation, bearing in mind the potential spreading of infection and the advisability of discontinuing therapy and/or initiating antibacterial measures. Generalized dermatological conditions may require systemic corticosteroid therapy. Steroid therapy, although responsible for remissions of dermatoses, especially of allergic origin cannot be expected to prevent recurrence. The use over extensive body areas, with or without occlusive nonpermeable dressings, may result in systemic absorption. Appropriate precautions should be taken. When occlusive nonpermeable dressings are used, miliaria, folliculitis and pyodermas will sometimes develop. Localized atrophy and striae have been reported with the use of steroids by the occlusive technique. When occlusive nonpermeable dressings are used, the physician should be aware of the hazards of suffocation and flammability. The safety of use on pregnant patients has not been firmly established. Thus, do not use in large amounts or for long periods of time on pregnant patients.

Available in 5 Gm. and 15 Gm. tubes and ½ lb. jars.

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Aristocort® Topical Ointment 0.1% and Cream 0.1%, 0.5%
Triamcinolone Acetonide

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When she's experiencing acute discomfort from cold symptoms, it's small wonder the patient becomes distressed about her condition.

She will breathe easier when you prescribe Novahistine LP. Novahistine LP is a long-acting decongestant that helps restore normal mucus secretion and ciliary activity—physiologic mechanisms which prevent infection of the respiratory tract. A dose of two tablets taken in the morning and repeated in the evening will usually keep air passages clear for 24 hours.

Use cautiously in individuals with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution patients who operate machinery or motor vehicles that drowsiness may result.

Each Novahistine LP tablet contains: phenylephrine hydrochloride, 25 mg., and chlorpheniramine maleate, 4 mg.

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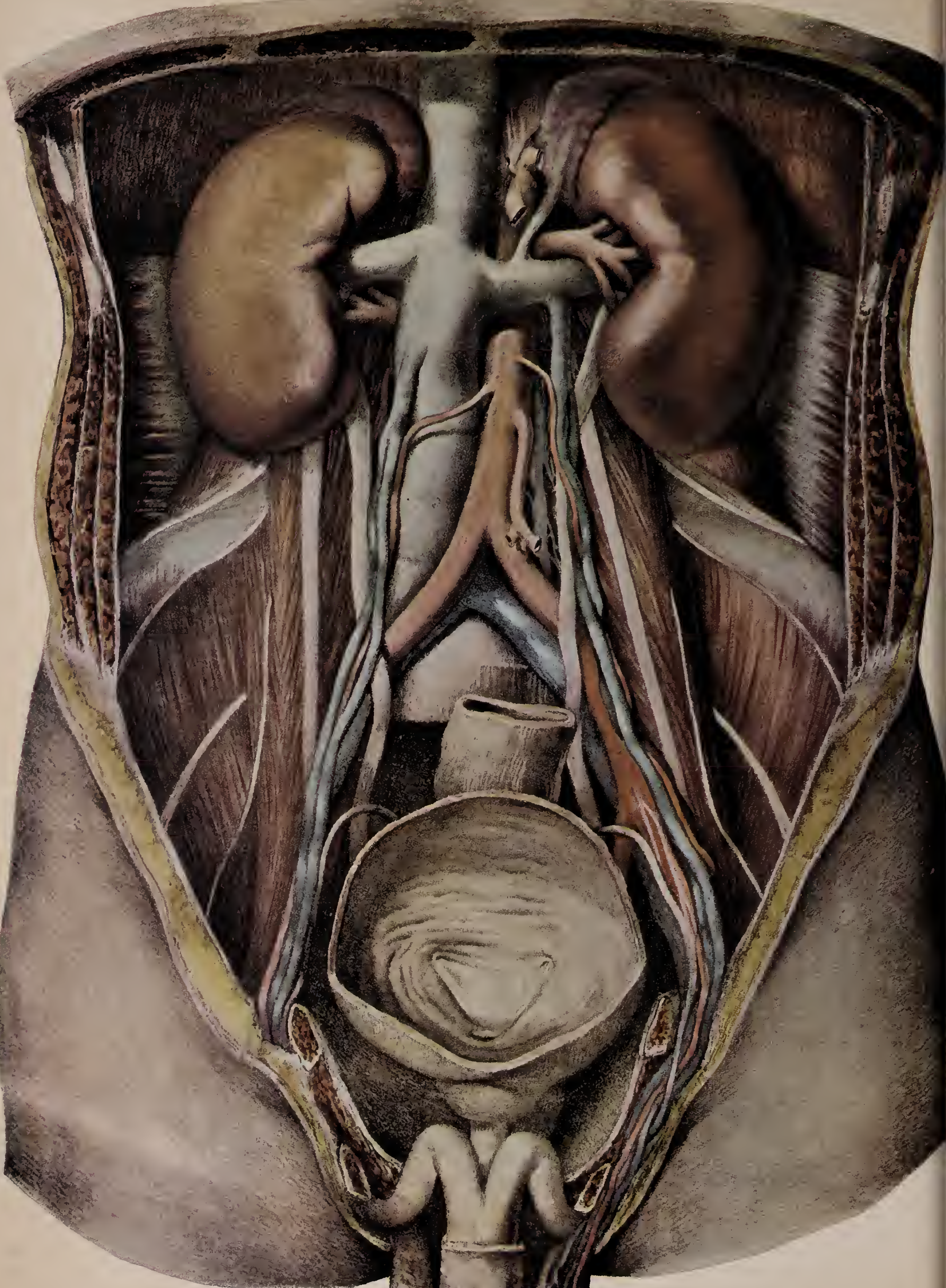
NOVAHISTINE® LP

For relief of nasal congestion.



Wide-range bactericidal action for genitourinary infections

NEW OMNIPEN®

(AMPICILLIN) WYETH

A penicillin that exhibits effectiveness within the gram-positive spectrum of penicillin G* and the gram-negative spectrum of chloramphenicol and the tetracyclines.*

Active at foci of infections—kidney, ureter, bladder or urethra.

Effective against many gram-negative and gram-positive pathogens—thus may be valuable not only in genitourinary but also in common respiratory and gastrointestinal infections.

Normally produces high and persistent levels in blood and high concentrations in bile and urine.

Significant inherent stability.

**Exclusive of penicillinase-producing bacteria.*

Indications: Urinary tract infections, especially those caused by *E. coli*, *Proteus mirabilis*, and *Streptococcus faecalis* and *viridans;* respiratory infections caused by *H. influenzae*, pneumococci, streptococci, and nonpenicillinase-producing staphylococci; and gastrointestinal infections caused by *Shigella* and *Salmonella*, including *Sal. typhosa.*

Contraindications: Hypersensitivity to penicillin; infections due to penicillinase-producing staphylococci and other penicillinase-producing bacteria.

Precautions: If allergic reaction occurs, discontinue ampicillin and administer epinephrine, corticosteroids, antihistamines and/or pressor amines as indicated. Transient moderate elevation of SGOT values of undetermined significance was noted in a few infants. Liver and kidney function as well as hematopoietic tests are advisable during therapy, particularly in infants. As with other antibiotics, precautions should be taken against gastrointestinal superinfection. Safety for use in pregnancy has not been established.

Adverse Reactions: Occasional mild side effects as urticaria, skin rash, pruritus, diarrhea, nausea and vomiting. There have been no reports of blood dyscrasias, liver or kidney damage. Anaphylaxis has been reported.

Composition: Capsules, 250 mg.

American Hospital Formulary Service Category No. 8:12.16.

Wyeth Laboratories Philadelphia, Pa.

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"Yes, Doctor, the pain is gone."

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'Empirin'® Compound with Codeine Phosphate gr. ½ No. 3
Each tablet contains: Codeine Phosphate gr. ½ (Warning—May be habit forming), Phenacetin gr. 2½, Aspirin gr. 3½, Caffeine gr. ½.

Keeps the Promise of Pain Relief

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Deaths

○ Indicates current membership in County Medical Society, The Pennsylvania Medical Society, and The American Medical Association.

○ Raymond D. Tice, Quakertown; Jefferson Medical College, 1922; age 67; died October 3, 1966. Dr. Tice founded the Tice Clinic and Quakertown Community Hospital and was named General Practitioner of the Year by the Bucks County Medical Society. He was a member of the American Academy of General Practice and the Pennsylvania Association of Clinical Pathologists. Dr. Tice is survived by his wife, a son, two daughters, and three stepsons.

○ George E. McGinnis, Norristown; Jefferson Medical College, 1911; age 80; died October 4, 1966. Dr. McGinnis was co-founder of the Valley Forge Medical Center and Heart Hospital and had served with the U. S. Medical Corps in France during World War I, at which time he received the Distinguished Service Cross. He is survived by his wife, a daughter, a son and a sister.

Harry A. Schatz, Philadelphia; University of Pennsylvania School of Medicine, 1905; age 85; died September 5, 1966. Dr. Schatz was cited by the Philadelphia County Medical Society in 1955 for 50 years service. Surviving are his wife, a son, two daughters, three sisters, a brother and nine grandchildren.

Charles D. Holden, Philadelphia; Hahnemann Medical School, 1898; age 88; died September 21, 1966. Survivors include his wife and a brother.

Douglas Macfarlan, Ardmore; University of Pennsylvania School of Medicine; age 79; died September 12, 1966. Dr. Macfarlan was a member of the American Otological Society, the Pennsylvania Academy of Ophthalmology and Otolaryngology and the Philadelphia Laryngological Society. He served on the staffs of the Presbyterian and Pennsylvania Hospitals. Surviving are his wife, a son, a daughter and two grandchildren.

Katherine L. Wright, Erie; Woman's Medical College, 1904; age 89; died October 1, 1966. Dr. Wright was president of the Erie County Medical Society from 1920 to 1921 and was on the staff of Hamot Hospital from 1909 until her death. She is survived by a daughter and a stepdaughter.

Jacob S. Goldstein, Philadelphia; Johns Hopkins School of Medicine; age 76; died October 4, 1966. Dr. Goldstein served with the Army Medical Corps during World War I. He is survived by two sons, two sisters and three grandchildren.

Gilbert I. Winston, Reading; Jefferson Medical College, 1914; died July 21, 1966. Dr. Winston was a former president of the Berks County Medical Society and head of the department of proctology at St. Joseph's Hospital. We have received no information regarding survivors.

○ Philip Sommerstein, West Mifflin; Charles University School of Medicine, 1924; age 72; died October 11, 1966. Survivors include his wife and a son.

S. Dana Weeder, Philadelphia; University of Pennsylvania School of Medicine, 1917; age 70; died October 5, 1966. Dr. Weeder was emeritus clinical professor of surgery at Jefferson Medical College. He was a member of the Philadelphia Academy of Surgery, the Philadelphia College of Physicians and an examiner for the National Board of Medical Examiners. Surviving are his wife, two daughters, two sons, a sister and ten grandchildren.

Theodore S. Weiss, Manayunk; Temple University School of Medicine; age 65; died September 20, 1966. Survivors include his wife, two daughters, a son and a stepbrother.

○ Arthur P. Keller, McKeesport; University of Michigan School of Medicine, 1937; age 55; died October 5, 1966. Dr. Keller had served on the board of the American Academy of Pediatrics and the American Academy of Allergies. He is survived by his wife, two daughters, two brothers and a sister.

○ John C. Bryson, Pottsville; Johns Hopkins University School of Medicine, 1938; age 56; died October 26, 1966. Dr. Bryson was a Fellow of the American College of Surgeons. He is survived by his wife and two daughters.

○ Hollister W. Lyon, Punxsutawney; Temple University School of Medicine, 1923; age 73; died November 3, 1966. Dr. Lyon was a member of the American College of Surgeons. He is survived by his wife, a son and daughter.

William B. Smith, Bangor; University of Pennsylvania School of Medicine, 1922; age 72; died October 15, 1966. Dr. Smith is survived by his wife.

Edward T. Crossan, Conshohocken; University of Pennsylvania School of Medicine, 1913; age 76; died September 11, 1966. Dr. Crossan is survived by his wife.

James J. Dougherty, Jim Thorpe; Temple University School of Medicine, 1921; age 72; died October 10, 1966. Dr. Dougherty was president of the Carbon County Medical Society in 1939. He is survived by his wife.

Jacob S. Goldstein, Philadelphia; Johns Hopkins University School of Medicine, 1912; age 76; died October 4, 1966. Dr. Goldstein is survived by two sons.

Willard S. Hastings, Elkins Park; University of Michigan School of Medicine, 1909; age 82; died October 17, 1966. Dr. Hastings was director of cancer research at Jeanes Hospital. He is survived by his wife, a son and three daughters.

○ Jan Karolcik, Uniontown; Temple University School of Medicine, 1922; age 73; died November 1, 1966. Dr. Karolcik was an honorary member of the J. E. Purkyne Medical Society of Czechoslovakia, a member of the National Slovak Society and physician of the Fayette County Jail. He is survived by his brother.

Max B. Lurie, Philadelphia; Cornell University Medical College, 1921; age 73; died September 23, 1966. Dr. Lurie was emeritus professor of pathology at the Henry Phipps Institute of the University of Pennsylvania. He is survived by his wife and a son.

○ Anthony L. Cervino, Greensburg; University of Pittsburgh, 1930; age 62; died November 5, 1966. Dr. Cervino was a member of the American Society of Abdominal Surgeons, the International College of Surgeons, and a Fellow of the International Academy of Proctology. Survivors include his wife and four children.

○ William D. Cleland, New Castle; Western Reserve University Medical School, 1909; age 84; died October 1, 1966. Dr. Cleland received a plaque from the Pennsylvania Medical Society for fifty years service. He is survived by his wife, two sons, and a daughter.

Well, Doctor, it's sort of
a cross between a smoker's hack and a seal's bark.

It's a wise mother who realizes there may be more to her child's cough than meets the ear —and brings the youngster to you promptly for diagnosis and treatment.

If the cough is the useless, exhausting type that often accompanies respiratory infection or allergy, you can provide prompt relief with Novahistine DH. Its decongestant-antitussive action controls frequency and intensity of cough spasms without abolishing cough reflex. And the fresh grape flavor of Novahistine DH appeals to children and adults alike.

When your diagnosis is bronchitis, complicated by thick tenacious exudates, Novahistine Expectorant is particularly useful. It not only provides decongestive action and controls the cough, but also encourages expectoration, thus easing bronchial constriction and obstruction.

Use with caution in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Ambulatory patients should be advised that drowsiness may result. Continuous dosage over an extended period is contraindicated since codeine phosphate may cause addiction.

Each 5 ml. teaspoonful of Novahistine DH contains codeine phosphate, 10 mg. (Warning: may be habit forming); phenylephrine hydrochloride, 10 mg.; chlorpheniramine maleate, 2 mg.; chloroform (approx.), 13.5 mg.; l-menthol, 1 mg. (Alcohol 5%). Each 5 ml. of Novahistine Expectorant contains the above ingredients and, in addition, glyceryl guaiacolate, 100 mg.

NOVAHISTINE® DH
NOVAHISTINE® EXPECTORANT

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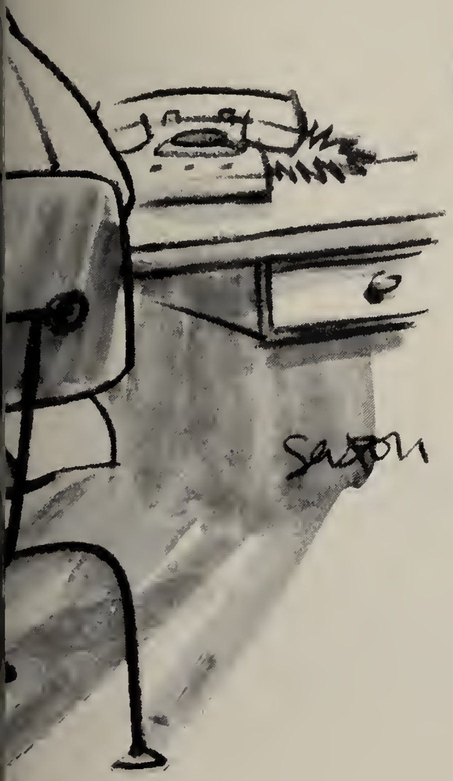
Division of The Dow Chemical Company, Indianapolis



To help dispel the symptoms
of mild depressive states

CONSIDER **DEXAMYL**® FIRST
brand of dextroamphetamine sulfate and amobarbital

Often within the hour, 'Dexamyl' works to help dispel such symptoms as apathy, pessimism, loss of interest and initiative, and lack of ability to concentrate.

Formulas: Each 'Dexamyl' Spansule® capsule (brand of sustained release capsule) No. 1 contains 10 mg. of Dexedrine® (brand of dextroamphetamine sulfate) and 1 gr. of amobarbital, derivative of barbituric acid [Warning, may be habit forming]. Each 'Dexamyl' *Spansule* capsule No. 2 contains 15 mg. of Dexedrine (brand of dextroamphetamine sulfate) and 1½ gr. of amobarbital [Warning, may be habit forming].
The following is a brief precautionary statement. Before prescribing, the physician should be familiar with the complete prescribing information in SK&F literature or *PDR*.
Precautions: Use with caution in patients hypersensitive to sympathomimetics or barbiturates and in coronary or cardiovascular disease or severe hypertension. Do not use in patients taking MAO inhibitors. Excessive use of the amphetamines by unstable individuals may result in a psychological dependence; in these instances, withdraw the medication. Use cautiously in pregnant patients, especially in the first trimester. *Side effects:* Insomnia, excitability and increased motor activity are infrequent and ordinarily mild.

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Maximum limit $150,000 member; $75,000 wife of member. New low cost of $ .85 per thousand per year. Full principal sum paid for permanent and total disability from bodily injury.

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A special letter-number symbol will appear on each Lilly capsule or tablet. By checking this code against the *Identi-Code Index,* you will be able to identify each unit quickly and accurately:

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A complete explanation of Identi-Code and its use is provided in the *Identi-Code Index.* If you have not yet received an index, your Lilly representative will be pleased to supply you with a copy.

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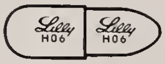	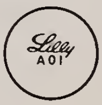	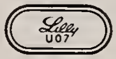	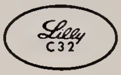	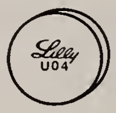

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ORIGINAL PAPERS

Cardiac Resuscitation

A report of a cardiac resuscitation team's efforts in a five hundred bed community hospital is accompanied by a comparative analysis of results

JOHN H. ESBENSHADE, M.D.

Lancaster, Pennsylvania

Progress in the treatment of cardiac arrest has been very significant during the last six years. External massage[1], direct current defibrillation,[2] and correction of frequently associated metabolic acidosis, [3, 4, 5, 6] all introduced within the past six years, have gradually improved the rate of success for treatment of cardiac arrest, particularly those arrests occurring outside the operating room suite.

It is the purpose of this communication to describe the organization and implementation of a "Cardiac Resuscitation Team" in a 500 bed community hospital, to report the results of the team's efforts and offer a brief comparative analysis.

Material and Methods

The Cardiac Resuscitation Team is basically comprised of members of the house staff, including rotating interns, general practice residents and a senior surgical resident on rotation from the University of Pennsylvania. When each of these physicians begins his affiliation with Lancaster General Hospital he is given intensive instruction in the basic principles involved in the treatment of cardiac arrest, including practical experience in the use of all of the mechanical aids available. These mechanical aids, along with other ancillary materials listed in TABLE IV, are contained in the "Code Blue" Cart, which is maintained in the Intensive Care Unit.

When a doctor or nurse suspects a patient has suffered cardiac arrest or observes sudden and unexpected circulatory collapse, a telephone operator is immediately alerted to announce "Code Blue" and the room or ward number of the patient over the hospital paging system. Nurses in that area immediately clear the room and institute external cardiac massage and artificial ventilation. A special elevator operator is also notified of the emergency via telephone and requested to stand-by to transport the "Code Blue" Cart. The nurses in the Intensive Care Unit are also alerted and with the assistance of the elevator operator escort the cart to the patient's bedside.

In response to the Code Blue alert, all available members of the Cardiac Resuscitation Team proceed immediately to the announced location of the emergency. The first member of the team to arrive at the scene assumes charge of the cardiac arrest until the attending physician or a member of the Department of Cardiology arrives. Meanwhile, the Inhalation Therapy Department has been alerted and its members promptly respond to take over the ventilation of the patient and assist in any other way required.

The first members of the Cardiac Resuscitation Team to arrive on the scene make a total assessment of the situation. They first make sure that the patient is receiving adequate external cardiac massage and artificial ventilation. If an oral pharyngeal airway is inadequate an endotracheal tube is inserted. Concurrently another member of the team establishes the clinical diagnosis of the cardiac condition with electrocardiographic observations and rapid review of the patient's clinical chart. Meanwhile other members of the team are beginning the administration of intravenous fluids with sodium bicarbonate and pressor agents, most frequently through a venous cutdown. Supplemental cardiac drugs such as epinephrine, isoproterenol, digitalis, and quinidine are used as indicated. When the diagnosis of ventricular fibrillation is made electrical defibrillation is done promptly. At the outset of this study, an A.C. defibrillator was the only one available. More recently both A.C. and D.C. defibrillators are being used.

Early in our experiences we discovered that the external pacemaker was unsuccessful in sustaining the heart beat of an asystole patient. Recently we have attempted the immediate implantation of an intracardiac transthoracic electrode for internal pacing. This has improved slightly our short-term success in treatment of asystole. To this date, no patients with asystole have survived to be discharged from the hospital.

Results

With one exception this report includes virtually every known case of cardiac arrest occurring outside of the operating room suite at the Lancaster General Hospital between May 1, 1963 and January 31, 1966. The exception is an unknown number of patients on whom resuscitation was attempted because of serious Stokes-Adams syncope. Although one of these patients was successfully resuscitated, he is not included in the statistics presented here because the series is incomplete.

In this communication there is no attempt to separate the patients who were in the Intensive Care Unit and those on the general medical and surgical floors of the hospital because of incomplete data. At the outset of this study the equipment for a cardiac care unit was not available. More recently, monitoring equipment has become available. Our more recent data is

---

■ **Dr. Esbenshade is senior physician at Lancaster General Hospital and associate in medicine at Temple University School of Medicine. He is a Fellow of the American College of Physicians.**

SQUIBB NOTES ON THERAPY

MOLECULAR REMODELING–

laboratory exercise or clinical necessity?

More than twenty-five years have passed since the discovery of the diuretic activity of sulfanilamide started pharmacologists on a succession of molecular remodelings to find the ideal diuretic.

Diuresis–a sought-after clinical effect from an unwanted side effect

It started in 1937 when a clinician reported that the administration of a sulfonamide was sometimes accompanied by an unexplainable side effect–metabolic acidosis.[1] Three years later the side effect was explained. The sulfonamide radical of sulfanilamide inhibited carbonic anhydrase,[2] the enzyme responsible for converting carbon dioxide and water to hydrogen ions and bicarbonate ions.

Later, other investigators showed by dog experiments that metabolic acidosis probably resulted when the inhibition of carbonic anhydrase upset the exchange of hydrogen and sodium ions, causing increased excretion of sodium as the bicarbonate.[3]

It was twelve long years after the first report of the unexplainable side effect (metabolic acidosis) that it was finally shown that large doses of sulfanilamide administered to edematous patients were indeed capable of promoting diuresis.[4] However, the possibility of toxic effects from its prolonged use and its relatively weak diuretic action made it impractical for clinical use as a diuretic.[5]

Because the inhibition of carbonic anhydrase seemed to be the key to effective diuresis, investigators began to look for more potent enzyme inhibitors —in the hopes that they would be more effective diuretics.

The most important of these early compounds, acetazolamide, enjoyed several years of fairly wide clinical use.

Its carbonic anhydrase inhibitory activity was several hundred times greater than that of sulfanilamide.[6] The increase in inhibitory activity, however, increased not only the excretion of sodium and bicarbonate ions, but also the excretion of potassium.[7] And, like its predecessor, acetazolamide precipitated mild acidosis. Its prolonged use could result in hypokalemic acidosis.[7]

The 'thiazides'–an answer to the metabolic acidosis caused by carbonic anhydrase inhibition

Despite the fact that the sulfonamide group appeared to be responsible for carbonic anhydrase inhibition which in turn appeared to be responsible for diuresis, investigators began to synthesize compounds with structural alterations to the sulfonamide group.

The first major breakthrough came with the synthesis of chlorothiazide. Altering the sulfonamide group did indeed alter the ability of chlorothiazide to inhibit carbonic anhydrase–it was only 1/10th as potent as acetazolamide in inhibiting the enzyme.[8] Despite the drop in inhibitory potency, however, chlorothiazide proved to be an effective diuretic–an observation that led to the conclusion that its diuretic action was due to some mechanism other than its action on carbonic anhydrase.[9, 10]

For effective diuresis, chlorothiazide was administered in daily dosages ranging from 250 to 2000 mg.[11] It increased the excretion of sodium and chloride; and, to a lesser extent, potassium and bicarbonate.[11] The excretion of potassium appeared to be maximal at higher dose levels at which, theoretically, the carbonic anhydrase inhibitory effect is more active.[11] Its prolonged use, therefore, could sometimes result in metabolic hypokalemic, hypochloremic alkalosis.[7]

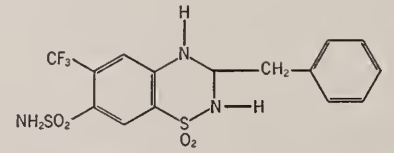
Naturetin–effective diuresis with more favorable electrolyte balance

Other thiazides followed—with improvements being aimed at two particular areas: 1. attempts to increase diuretic action in relation to the milligram potency of the drug, and 2. attempts at a more favorable sodium/potassium ratio in the urine, i.e., to decrease the excretion of potassium while maintaining the excretion of sodium.[12]

One of these, Naturetin, Squibb Bendroflumethiazide, has made advances on both these points. "By adding a 3-benzyl radical to hydroflumethiazide a rather dramatic reduction in dose range is accomplished. With this drug, effective sodium excretion is obtained with doses between 2.5 and 10 mg., which is a 200 to 1 ratio as compared to chlorothiazide..."[13]

Moreover, due probably to its virtual lack of carbonic anhydrase inhibition, Naturetin (bendroflumethiazide) has been shown to cause less potassium and bicarbonate loss and less alteration in urinary pH than either chlorothiazide or hydrochlorothiazide.

Naturetin is outstandingly effective not only in establishing, but also in maintaining, excretion of retained fluid in edematous patients. And its duration of action is sufficiently prolonged to allow a single daily administration in most patients. Naturetin is also an effective antihypertensive agent.



Contraindications: Severe renal impairment; previous hypersensitivity.

Warning: Ulcerative small bowel lesions have occurred with potassium-containing thiazide preparations or with enteric-coated potassium salts supplementally. Stop medication if abdominal pain, distension, nausea, vomiting, or G.I. bleeding occur.

Precautions: The dosage of ganglionic blocking agents, veratrum, or hydralazine when used concomitantly must be reduced by at least 50% to avoid orthostatic hypotension. Electrolyte disturbances are possible in cirrhotic or digitalized patients.

Side Effects: Bendroflumethiazide may cause increases in serum uric acid, unmask diabetes, increase glycemia and glycosuria in diabetic patients and may cause hypochloremic alkalosis, hypokalemia; cramps, pruritus, paresthesias, and rashes may occur.

Supplied: Naturetin (Squibb Bendroflumethiazide) 5 mg. and 2.5 mg. tablets. Also available Naturetin c̄ K [Squibb Bendroflumethiazide (5 or 2.5 mg.) with Potassium Chloride (500 mg.)]. For full information, see Product Brief.

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to reduce excess fluid
or high blood pressure

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TABLE I

Admitting Diagnosis of 158 Patients Who Had Emergency Cardiac Resuscitation

Myocardial Infarction	98
Diabetes	2
Diabetes with ASHD and CHF	5
Diverticulitis with Peritonitis	1
Diabetic Acidosis	1
Gastric Ulcer	1
Congestive Heart Failure	13
Gastrointestinal Bleeding	2
Healthy Outpatient for X-Ray	1
Herniated Nucleous Polposus	1
Cancer of Rectum with Myles Resection	1
Benign Prostatic Hypertrophy	1
Cancer of Colon, Postop	1
Rheumatic Heart Disease with AS, AI, MI, CHF, Pericarditis	3
Cancer of the Uterus	1
Cancer of the Breast	1
Cancer of the Prostate	1
Hypertensive Cardiovascular Disease	1
Drowning	1
Trauma, Internal Hemorrhage	1
Fracture of Humerus, Postop	1
Nasal Hemorrhage	1
Chronic Renal Failure, HCVD	1
Status Asthmaticus	1
Aortic Abdominal Aneurysm	3
Addison's Disease	1
Hypertensive Encephalopathy	1
Ruptured Cerebral Aneurysm	1
Hemachromatosis	1
Fractured Skull	2
Leukemia, GI Hemorrhage	1
Obstructive Jaundice, Cerebral Sclerosis, ASHD, Cholecystojejunostomy; Choledochostomy	1
Undiagnosed—DOA—Moribund on Arrival at Hospital	4
Adenocarcinoma of Prostate; Diabetes Mellitus, CHF	1
ASHD, Pulmonary Fibrosis	1

TABLE II

Patients Successfully Resuscitated Out of 98 Cardiac Arrests Following Myocardial Infarction

No.	Age	Sex	Rhythm	Comments
1.	72	M	Ventric. Fib.	
2.	39	M	Ventric. Fib.	Diabetes; CHF
3.	71	F	Ventric. Fib.	
4.	51	M	Ventric. Fib.	2 Previous Infarcts
5.	48	M	Ventric. Fib.	
6.	69	M	Ventric. Fib.	
7.	71	M	Ventric. Fib.	
8.	57	M	Ventric. Fib.	
9.	64	M	Ventric. Fib.	
10.	77	F	Ventric. Fib.	Defib. 11 Times; 450 x 6; —55 x 1; 650 x 2; —750 x 2
11.	37	F	Ventric. Fib.	
12.	63	M	Ventric. Fib.	Defib. 6 Times
13.	72	F	Ventric. Fib.	
14.	57	M	Ventric. Fib.	Code Blue 2 Times—11/16 and 11/21/65
15.	62	M	Ventric. Fib.	
16.	68	F	Ventric. Fib.	
17.	70	M	Ventric. Fib.	
18.	82	F	Ventric. Fib.	
19.	48	M	Ventric. Fib.	Defib. 27 Times Day of Admission

currently being analyzed in an attempt to assess the effectiveness of treatment in the cardiac care unit compared with the care of patients in the general medical and surgical floors.

Excluding the above mentioned group there was a total of 158 patients on whom resuscitative efforts were made by the Cardiac Resuscitation Team. These included ninety eight myocardial infarctions; fifty five of these developed ventricular fibrillation and forty three had asystole. Other conditions are noted in TABLE I. A total of nineteen patients or 19.9 per cent of patients with the diagnosis of myocardial infarction were discharged from the hospital alive. All of these had ventricular fibrillation (TABLE II). This resulted in a 34.9 per cent success rate in the treatment of ventricular fibrillation in myocardial infarction. Our short-term success with ventricular fibrillation included eleven patients who lived for a period of one hour to six weeks. We have only had short term success in the treatment of asystole, including eight patients who lived a period of one hour to fourteen and one-half days. The overall success rate in the entire series was 12 per cent of 158 cases. Many of these patients were in far advanced congestive failure; four were moribund on arrival at the Emergency Room; three were not diagnosed; and one was a victim of drowning. Three others had abdominal aneurysms.

TABLE III

Summary of Efforts at Cardiac Resuscitation Outside the Operating Room

	Patients Outside of Suite	Discharged Alive	Acute Myocardial Infarction	Discharged Alive
Barringer & Assoc. (10)	83	3	24	00
Esbenshade	158	19	98	19
Gilston & Leeds (11)	19	7	10	2
Himmelhock & Assoc. (12)	63	2	22	1
Jordan & Assoc. (13)	100	3	27	0
Jude & Assoc. (1)	87	8	24	3
Kaplan & Knott (14)	98	4	32	2
Pederson & Assoc. (15)	177	25	. .	. .
Robinson & Assoc. (9)	. .	. .	38	0
Semple & Assoc. (8)	29	11	20	8
Shipman & Assoc. (16)	27	7	15	1
Smith & Anthoneisen (17)	254	40	38	7
Stemmler (7)	103	5	26	1
TOTALS	1198	134—11.3%	374	52—14.2%

Of the nineteen patients discharged alive, all have returned to pre-arrest status, physically and mentally. The ages of the surviving patients ranged

TABLE IV

Contents of "Code Blue" Cart

- 2 Aminophyllin 0.5 GM. (7½ Gr.)
- 2 Aramine 10 MGM/CC
- 2 Calcium Gluconate 10%
- 3 Cedilanid—D 0.4 MGM
- 3 Epinephrine 1:1000
- 2 Hydrocortisone Soluble 100 MGM (Solu-Cortef)
- 3 Isuprel 1:5000
- 3 Levophed 0.2%
- 2 Potassium Chloride 20 MEQ
- 2 Pronestyl 100 MGM/CC
- 2 Quinidine Gluconate 0.08 GM/CG
- 2 Sodium Chloride (P.S.S.) (Normal Saline)
- 2 Sodium Lactate Quadrate 120 MEQ
- 4 Sodium Bicarbonate
- Endotracheal Tubes (3) Plus Hemostat
- Laryngoscope (Child and Adult Attachment)
- Whistle-Tipped Rubber Catheters
- Plastic Oropharyngeal Airways (6 Sizes)
- Padded Tongue Blades
- Regular Tongue Blades
- Xylocaine Ointment (1 Tube)
- Flashlight
- EKG Adapter (2)
- Set "Paddle" Electrodes and Cable (1)
- Set "Luer Lock" Electrodes and Cable (1)
- Spare Fuses
- Rubber Strap (1)
- Lead for Internal Pacemaker
- Syringes
- Needles
- Alcohol Sponges
- Ambu Bag
- Emergency Cut-Down Pack
- Cardiac Arrest Tray (Plus Scalpel and Heart Needle)
- Special "Code Blue" Tray" Tray (Internal Electrodes)
- Gloves, Various Sizes
- Intracaths
- 1 Extra Set Polyethylene Tubing
- Intravenous Solutions
  - (2) 5% G/W 500 CC
  - (1) 5% G/W 1000 CC
  - (2) 5% G/W 500 CC
  - (2) Sodium Lactate 1/6 Molar 5000 CC
  - (1) Physiological Sodium Chloride 500 CC
  - (1) Dextran 500 CC
  - (3) Wyamine 2 CC 15 MG/CC
  - (3) Wyamine 1 CC 30 MG/CC
- Tourniquets (2)
- Armboard
- Adhesive Tape
- Roller Gauze
- Venopacks (2)
- Venotubes (2)
- Recipient Blood Sets (2)
- Instruction Manuals
- EKG Paste

from thirty seven to eighty two. Eight of the patients were seventy years of age or over and another six patients were in their sixties (TABLE II).

Seventeen of the cases were first seen in the Emergency Room, where a diagnosis of myocardial infarction was established. Three of these were successfully resuscitated and discharged alive. This 17.7 per cent success rate compares well with the overall rate of the entire series.

Discussion

These statistics indicate that cardiac resuscitation can be carried out successfully in the community hospital setting. Our success rate in patients with acute myocardial infarction is distinctly higher than that reported recently by Stemmler [7] in his review of 815 cases of cardiac arrest outside of the operating room. In his series 7.2 per cent of 208 patients with myocardial infarction complicated by cardiac arrest were discharged alive. A more encouraging statistic recently came from Semple et. al.[8] However, their series contained only twenty patients with acute myocardial infarction that developed cardiac arrest, and eight were discharged alive from the hospital following resuscitation. Another more successful series was reported by Robinson et. al.[9] with eight long-term survivors out of thirty-eight attempts at resuscitation.

On TABLE III there is a summary of a total of 1198 efforts at cardiac resuscitation outside the operating room. Of these patients, 374 were patients with acute myocardial infarction. There were fifty two or 14.2 per cent of these patients with myocardial infarction discharged alive from the hospital. There is a wide disparity of results, from none discharged alive to 40 per cent discharged alive. The reason for this is not immediately evident.

It becomes apparent that a well coordinated effort to organize an effective cardiac resuscitation team will favorably affect the mortality statistics from acute myocardial infarctions. Recent work has shown that the establishment of a cardiac care unit will further improve the mortality in this condition.[18] Our work merely points out that it is not necessary to wait for the establishment of a coronary care unit. In our series, one patient out of five in whom cardiac arrest occurred due to myocardial infarction was discharged alive from the hospital. The summary of 374 patients on TABLE III indicates one out of seven were discharged alive from the hospital.

Summary

A total of 158 patients developed cardiac arrest outside of the operating room suite over a period of thirty-three months. Of this group ninety eight had acute myocardial infarction; nineteen of these, or 19.9 per cent were discharged from the hospital alive.

All of the patients discharged alive were noted to have ventricular fibrillation as their arrhythmia. There were fifty five patients with ventricular fibrillation due to myocardial infarction in this series; 34.9 per cent of these were discharged alive from the hospital. Fourteen of the resuscitated patients (73.7 per cent) were over the age of sixty. Patients with asystole lived from one hour to fourteen days.

We have not included in this series patients with Stokes-Adams syndrome because our information is not complete. The series includes patients in the Intensive Care Unit and on the general medical and surgical floors.

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Woman's to Establish Child Health Center

Dr. Glen R. Leymaster, president and dean of The Woman's Medical College of Pennsylvania, recently announced a one-year grant of $464,468 made available from the Children's Bureau of the Department of Health, Education and Welfare has made possible the establishment of a Child Health Center for comprehensive health care at the College-Hospital. The founding of such centers by Woman's Medical College and the other Philadelphia medical schools marks a milestone in the promotion of good health among children. Funds for this Center were appropriated under Public Law 89-97, medicare.

The Child Health Center is part of a national program to promote the health of the "whole child." The outstanding feature of the Center is the total health services it will afford all the children under eighteen years of age in the family. The Center will be staffed by six teams of physicians, including members of all the specialties plus members of associated medical services.

In following the purpose of the Center to maintain good health in children and keep them fit, the Center will:

a. Examine all enrolled children for physical and mental defects;
b. Search for unsuspected disease or potential problems;
c. Establish programs of preventive health care for the children and their families;
d. Maintain complete medical and dental health histories;
e. Provide treatment for any of the above as needed.

Due to limited funds for the first year, enrollment in the Center can be made available to only 1,800 children.

Information concerning enrollment may be obtained by calling the office of the Department of Pediatrics at the Woman's Medical College in Philadelphia.

Ureteral Injury

The prevention, diagnosis and treatment of ureteral injury concomitant with resection of the rectum.

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Philadelphia, Pennsylvania

Abdominoperineal excision of the rectum is second only to hysterectomy as the operation most frequently associated with accidental ureteral injury. The incidence of ureteral injury is probably higher than the one percent commonly reported.[11] Therefore, it is believed a preplanned method of management may prove of inestimable value. Based on our experience, this discussion is offered as a guide for those who may encounter this complication. Techniques which produce the greatest salvage of renal function are emphasized herein.

Prevention

It is always good practice to identify and isolate the ureters early in the dissection for their future protection. The experienced surgeon will recognize the danger to the ureters and exercise extreme care during the following steps: mobilization of the sigmoid, clamping the inferior mesenteric, the uterine and the ovarian vessels, and during reperitonealization of the pelvic floor.[3] Before attempting to reperitonealize the pelvic floor, the surgeon should sweep the ureters laterally from the under surface of the peritoneum to which they adhere.[3]

Excessive dissection close to the ureter is a pitfall, since it may denude the vascular sheath and lead to a latent necrosis.

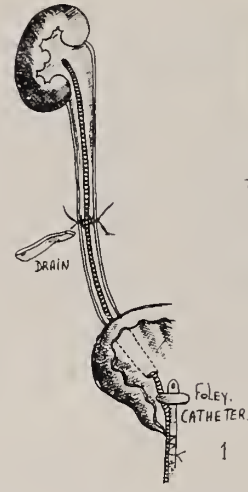
Preoperative intravenous urography should be a routine procedure, so that the presence, function and location of both kidneys and ureters are known. This is invaluable information should a ureter be injured during surgery. When a difficult dissection can be predicted, catheterization of the ureters makes it easier to identify and protect them during surgery.

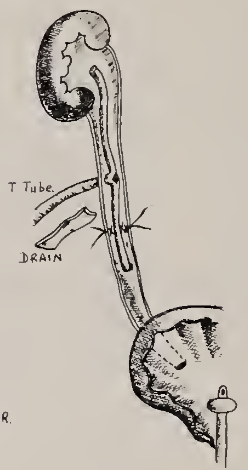
Diagnosis

Only about one fourth of ureteral injuries are diagnosed at the operating table. Of the remainder, one half are diagnosed in the early postoperative period, and the remainder after a month or more has elapsed.[1] In the operating room the diagnosis is clear, or can be proven by canulizing the ureter through an exposed portion. Therefore, most of the diagnostic problems occur in the postoperative period.

Postoperative Clinical Signs in Obstructive Ureteral Injury. Postoperative anuria that cannot be explained on the basis of profound shock indicates bilateral obstruction. Costophrenic ache, or ureteral colic, suggests unilateral ureteral obstruction. There may be associated fever and leukocytosis if renal infection supervenes. Urinalysis does not reflect the inherent problem because the afflicted kidney has a blocked ureter.

Postoperative Clinical Signs in Ureteral Injury, Causing Urinary Leakage. The leakage of urine from the





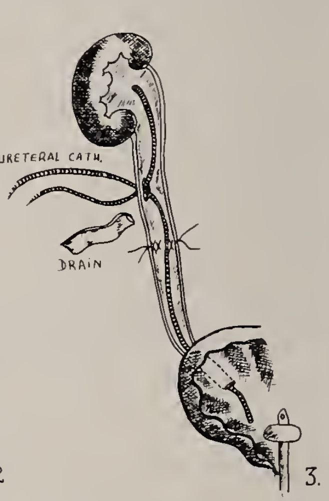


Fig. 1. High Ureteral Injury. A ureteral catheter is inserted to the level of the injury preoperatively. The distal end of the splinting polyethylene tube is pulled out the urethra via the ureteral catheter while the proximal end is placed in the renal pelvis. It is secured by ligature to an indwelling Foley catheter. The anastomosis is completed utilizing fine chromic catgut and extraperitoneal drainage is provided.

Fig. 2. High Ureteral Injury. A T-tube accomplishes renal decompression and splints the anastomosis. A wedge is removed from the tube opposite its external limb to facilitate removal. Flank drainage is mandatory.

Fig. 3. High Ureteral Injury. Through a proximal ureterostomy, one polyethylene tube ascends to the renal pelvis while a second descends to the bladder to splint the anastomosis. The assistance of a urologist is not required. Extraperitoneal drainage is established.

■ **Dr. Smith is a resident of proctologic surgery and Dr. Bacon is professor and head of the department of colon and rectal surgery, both with Temple University Medical Center.**

wound or the vagina may be followed by the disappearance of the obstructive symptoms, or it may be the initial indication of an injury to the ureter or bladder. The establishment of a urinary fistula allows a more deliberate timing of corrective surgery because the kidney is being decompressed.

Determination of the urea nitrogen performed on the fistulous discharge will distinguish urine from serous fluid since urine shows a higher urea content than blood or serous fluid.

Intermittent voiding, associated with a urinary fistula, indicates a ureteral, rather than a vesical fistula. In the latter case the bladder is continuously empty. Progressive signs of peritonitis may be the result of a high ureteral injury which is allowing urine to escape into the abdominal cavity.

Definitive Steps in the Diagnosis of Ureteral Injury. When the clinical findings suggest a ureteral injury, the exact location of the injury can be identified by an intravenous urogram, a retrograde pyelogram and by the injection of methylene blue into the bladder.

Nonfunction, or delayed function of the kidney, seen on intravenous urography may indicate which ureter is injured. Normal renal excretion may be observed with opaque medium entering the fistulous tract. Retrograde ureteral catheterization will identify the level of the injury. The catheter should be inserted to the point of obstruction before abdominal exploration.[1] When methylene blue is instilled into the bladder but does not appear in the fistulous tract, a vesical fistula can be excluded.

Treatment

Regardless of when the diagnosis is made, the treatment is the same, except where widespread inflammatory reaction prohibits definitive management and demands temporary urinary divergence.

The treatment depends upon the type and the site of the injury. Momentary clamping usually will not lead to ureteral necrosis. Similarly, deligation needs no further procedure. However, after twelve hours or more have elapsed, simple deligation will not usually suffice.

The anuric patient is treated by an immediate attack on the ureteral problem. Transplanting the ureters into the bladder is preferable to bilateral nephrostomy since the latter is an equally formidable procedure and would require further definitive surgery.[8]

The common practice in the management of ureteral injuries is as follows: high ureteral injuries are treated by uretero-ureterostomy, low ureteral injuries by the creation of ureteroneocystostomy, while ureteral gaps are bridged by the bladder flap technique.[8] Temporary urinary diversion requires a cutaneous ureterostomy.

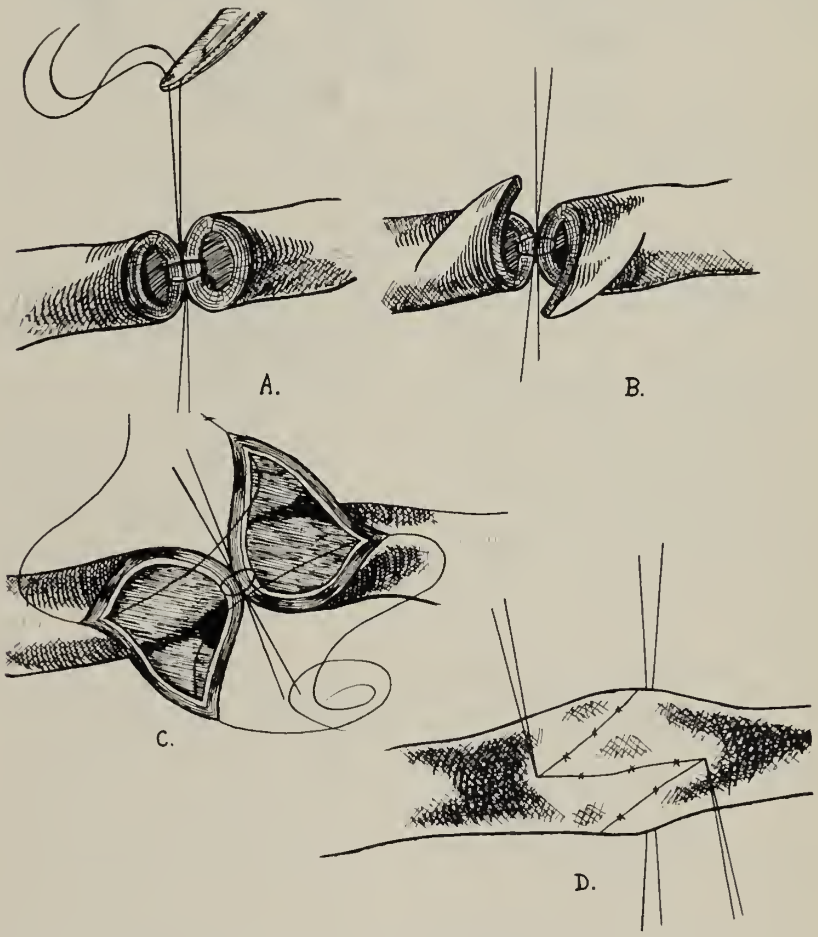


Fig. 4. High Ureteral Injury. Z-Plasty Anastomosis. A. The ends of the ureter are sutured together on their vascular side. B. Flaps are cut at an angle of 60° to the ends of the ureter, the incisions being approximately 2 centimeters in length. C. The placement of sutures which create the Z-plasty are seen. D. The completed anastomosis.

Splinting polyethylene tubes and flank drainage are indicated as in Fig. 1, 2 and 3.

Uretero-ureterostomy, or End-to-end Asastomosis. For better management the surgeon should be cognizant of the physiological principles involved. After the complete division of a ureter peristaltic waves are not transducted across the anastomosis for two to three weeks.[27] Therefore, a temporary physiological renal obstruction results. Fortunately a longitudinal incision in the ureter, which heals without difficulty,[15] will also arrest peristalsis temporarily in the distal portion of the ureter. It follows then that a ureterotomy proximal to the anastomosis will both decompress the kidney and put the anastomosis at rest. Of further benefit is the placement of the urine leakage, with its attendant periureteral fibrosis, away from the anastomotic site. We highly recommend the proximal ureterotomy.

Any method utilized must meet the following basic criteria: Immediate renal decompression has to be provided to preserve kidney function; the ureteral blood supply must be preserved; tension on the anastomosis must be avoided, and extraperitoneal flank drainage is always mandatory. While opinion is divided regarding the

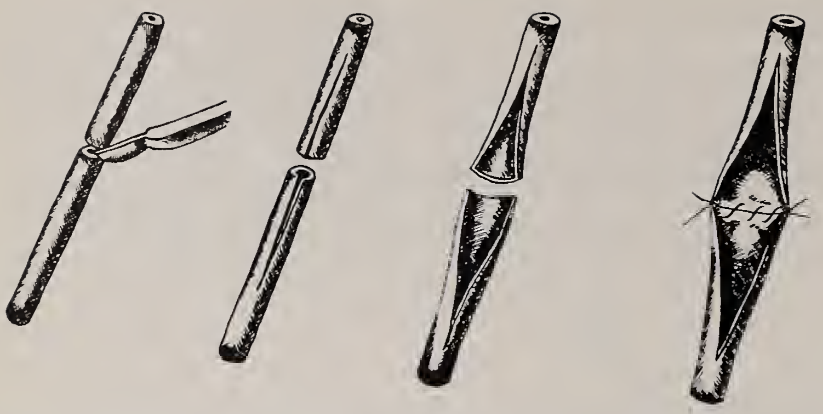


Fig. 5. Ribbon Anastomosis-Experimental. The ends of the ureter are cut on its avascular side for 2 centimeters proximally and distally. The ends are sewn open. Renal decompression is adequate and no splints are required. Extraperitoneal drainage is provided.

necessity of splinting the anastomosis, most authors, including ourselves, prefer this method. We believe that healing proceeds in a more orderly fashion with less kinking. The polyethylene splinting catheter chosen must fit the ureter loosely or it will not only stop all peristalsis but will also contribute to excessive submucosal ureteral fibrosis. This latter effect is especially undesirable at the anastomosis.[17] The problem of tension on the anastomosis may often be overcome by partial mobilization of the kidney, or bladder, or both.

In the three methods of anastomosis illustrated, each meets the basic criteria. The first does not utilize a proximal ureterostomy and requires the assistance of a urologist to retrieve the catheter from the bladder and fix it to an indwelling Foley catheter. The ureteral catheter should be left in place for fourteen to twenty one days.

Modifications to Prevent Anastomotic Stenosis. Despite strict adherence to the outlined principles, an alarmingly high percentage of cases develop stenosis at the anastomotic site. This results in poor, or lost, kidney function. Number 4-0 catgut sutures should be utilized. It matters little whether the sutures pass through the mucosa or only the seromuscular layer.

The most common modification involves cutting the ends of the ureter obliquely.[12] This lengthens the eventual anastomotic scar and allows for its contracture without compromising the ureteral lumen. A proximal ureterostomy with or without splinting is utilized.

Fig. 4 illustrates a Z-plasty anastomosis of the ureters which will widen the anastomotic circumference.[26] [Here the flaps are cut at an angle of 60° to the end of the ureter]. Although technically more difficult, a better result is achieved.

Fig. 5 demonstrates a ribbon anastomosis.[14] [The ureter is cut on its avascular side for two centimeters proximally and distally. The ends are sewn in an open position as shown]. Here there is good kidney decompression and no splints are required. Apparently the mucosa regenerates first and has time to dilate before the regenerating muscle surrounds it. The end result is a widening at the anastomosis. While the ribbon anastomosis has proven to be the most satisfactory technique in experimental animals, it has not had a wide enough clinical trial for recommendation at the present time.

Ureteroneocystostomy. The technique in its simplest form is illustrated in Fig. 6. It is particularly useful where low lying injury and/or inflammatory reaction makes an end-to-end anastomosis difficult. [Through an incision in the dome of the bladder, the end of the proximal ureter is pulled through a stab wound in the posterolateral wall of the bladder.[13] The end of the ureter is fishmouthed and sewn open either to the bladder mucosa or to the full thickness of the bladder wall by suture].

To reduce reflux, the ureter is better drawn through a submucosal tunnel after piercing the muscular wall of the bladder.[13] [An indwelling ureteral splint is inserted as far as the renal pelvis and fixed to the suprapubic tube, or to an indwelling Foley catheter]. The bladder incision is closed

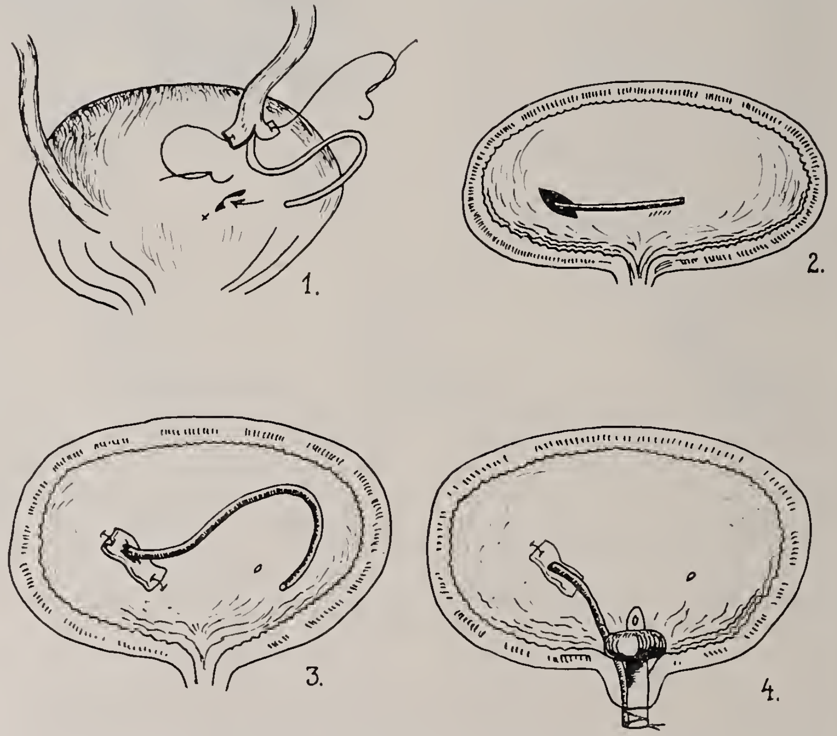


Fig. 6. Ureteroneocystostomy. A simple technique is depicted. Working through an incision in the bladder dome the ureter is pulled through the posterior lateral wall. The ureteral end is fishmouthed and sewn open either to the mucosa or to the full thickness of the bladder wall. The polyethylene tube is fixed to an indwelling Foley catheter. The bladder incision is closed in two layers. The retropubic space requires drainage.

in two layers; good kidney function can be expected.

Bladder Flap Technique

If a fairly long segment of ureter is missing or destroyed by inflammatory reaction, a distance of ten to twelve centimeters can easily be bridged.[4] Of course this method depends on a distensible, pliable bladder. Fig. 7 demonstrates the manner in which the gap to be bridged is measured with a tape.[8] This length of flap is outlined on the dome of the bladder. A width of bladder wall, sufficient to wrap around the ureter, is turned upward and anastomosed to the ureter.[9, 13] The anastomosis to the ureter can be either end-to-end or end to side, entering the lumen of the flap by way of a short submucosal tunnel.[23] The splinting catheter is indicated.

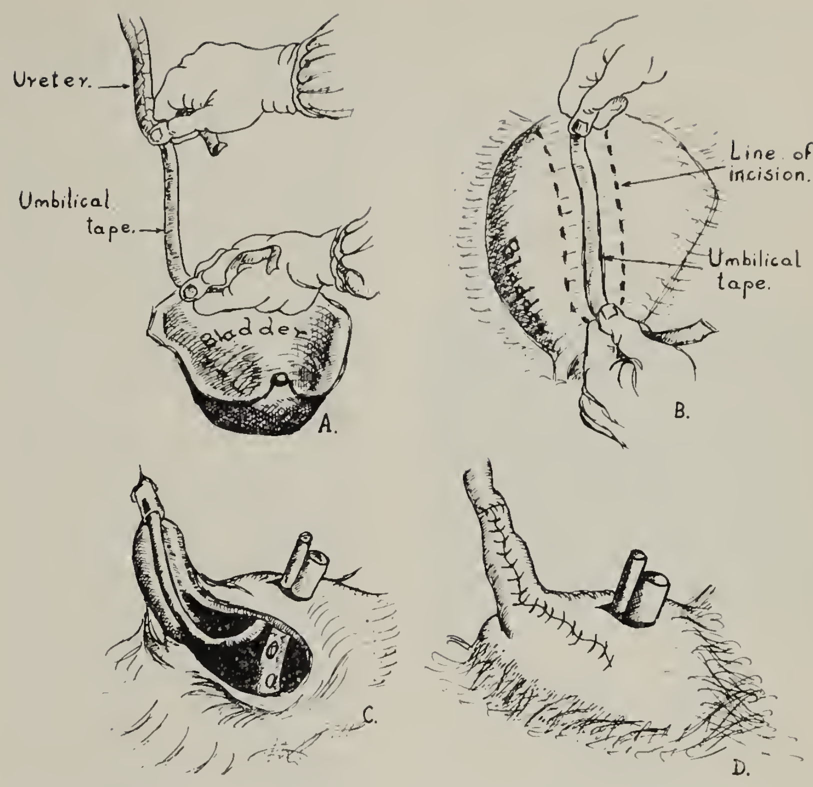


Fig. 7. Bladder Flap Technique. A. The distance to be bridged is measured with umbilical tape. B. This length of flap is outlined on the dome of the bladder. C. The flap is turned up for anastomosis over a polyethylene tube. D. The completed anastomosis with the polyethylene tube fixed to the suprapubic tube.

Cutaneous Ureterostomy

Where temporary urinary diversion is required, a cutaneous ureterostomy is the preferred procedure. It eliminates the problem of ascending infection and electrolyte imbalance. Both ureters may be brought extra-peritoneally to the midline, creating a single-stoma, double-barrelled cutaneous ureterostomy.[24, 20] In an effort to overcome stenosis at the skin level, the following technique has been devised:

A U-shaped flap of skin is turned upward, and the under surface defatted. The ureteral end, or ends, are cut obliquely and so placed that the shorter side is sewn to the depressed skin flap while the longer side is sewn to the lower skin edge. This results in skin superiorly opposing ureteral mucosa inferiorly to which it will not adhere. A French catheter is left in place for four days and a disposable appliance is changed weekly.

Other Urinary Diversion Procedures

To anastomose the ureter to its opposite member is to be condemned by most authors since drainage of each kidney is jeopardized.[2]

Since a wet colostomy is to be avoided, uretero-colostomy is limited to those cases in which the rectal sphincters can be preserved. This offers the advantage of ease of accomplishment. It has the disadvantages of producing hyperchloremic acidosis and ascending renal infection in a high percentage of cases. The procedure might be utilized if life expectancy is short, but should be avoided in the young patient in whom the prognosis is otherwise good. Coffey's technique is well known.[7] Here a muscular sheath one inch long is fashioned for the ureter along a taenia before the ureter enters the lumen of the colon.

The isolated rectosigmoid can be made into a satisfactory continent substitute bladder devoid of the problems of electrolyte imbalance and renal infection.[10] An abdominal colostomy, requiring no receptacle, is substituted for a cutaneous ureterostomy. It is possible to create an intersphincteric pull-through colostomy alongside the rectal bladder. For this, the colon proximal to the transection for the isolation of the rectum is brought out a tunnel fashioned between the anterior rectal wall and the anal sphincter mechanism.

While an isolated loop of ileum may be utilized to bridge a long ureteral defect, the main use of the ileum is in the creation of an ileal loop-conduit, as popularized by Bricker.[5] This is the commonly accepted procedure where the bladder has to be removed primarily, or as part of the surgical specimen. A segment of ileum about eight inches long and six inches from the ileocecal valve is chosen. The principles of this procedure include: the preservation of the blood supply to anastomose the ileum superior to the isolated loop; the careful closure of the mesenteric defect, and bringing the ileum to the skin, either medial or lateral to the cecum, whichever is more convenient. The skin site should be at the intersection of the lines drawn from the ninth costal cartilage to the symphysis pubis, and from the umbilicus to the anterior superior spine. An everted Brooke's[6] type ileostomy is utilized. The proximal end of the ileum is sewn closed. The left ureter is brought through the mesosigmoid avoiding kinking and anastomosed end to side to the ileum. The right ureter is similarly anastomosed to the side of the ileal loop. This will add at least one hour to the operating time and is frequently done as an initial procedure.

A Modern Innovation. Autotransplantation of the kidney has been successfully performed in cases where there has been almost complete loss of the ureter. The kidney is removed and replaced in the pelvis. Its vessels are anastomosed to the iliac vessels while placing the foreshortened ureter into the bladder.[16]

Nephrectomy. Ligation of the ureter will slowly produce cortical atrophy and nonfunction of the kidney. Nephrectomy, however, is only mandatory if renal infection follows nonfunction. It may be resorted to where alternative methods have failed, or the age of the patient militates against repeated surgical procedures.

Summary. The surgeon who performs considerable major rectal surgery for cancer is certain to encounter an occasional ureteral injury. However, the complication may be held at a minimum by being conscious of the inherent danger to the ureters at certain steps of the procedure and by the judicial use of ureteral catheters. Knowledge of the diagnosis and appropriate treatment of ureteral injuries will not only save lives but will result in the salvage of many kidneys which might otherwise be sacrificed.

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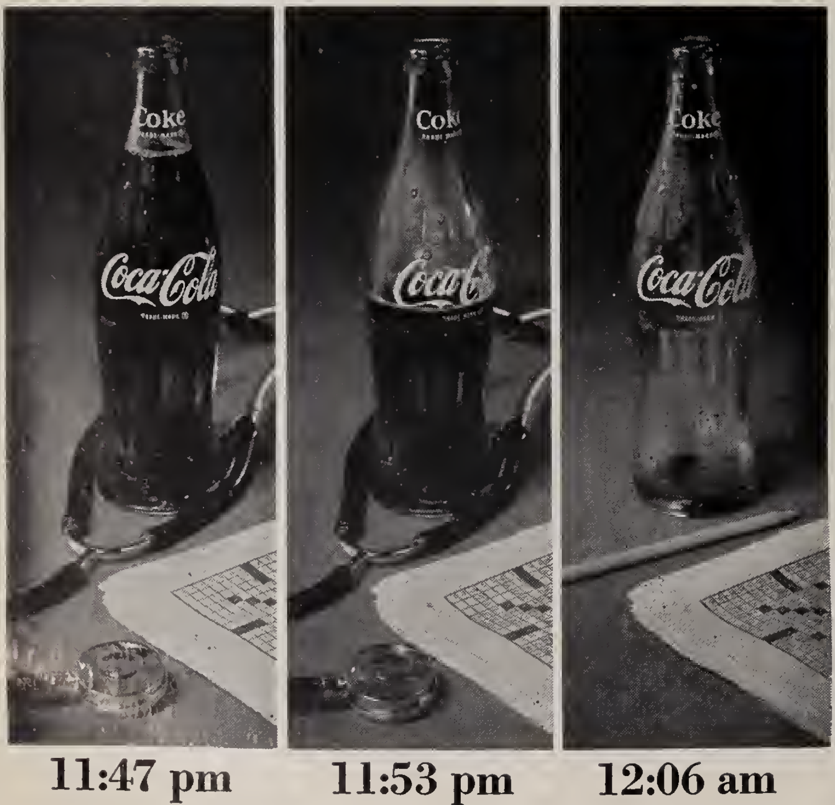

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SQUIBB NOTES ON THERAPY

"'Tranquilizer' is not a good word"[1]

"THIS classification is psychologically too seductive, pharmacologically too unspecific, and in terms of results not infrequently untrue."[2]

What is a tranquilizer? According to the 24th Edition of Dorland's Medical Dictionary[3] a tranquilizer is "an agent which acts on the emotional state, quieting or calming the patient without affecting clarity of consciousness."

Defining a drug by its effects, however, can be misleading. The same effects by which the dictionary defines a tranquilizer have sometimes been seen after administration of a sedative — or, for that matter, a placebo.

Ambiguous though the term may be, it appears to be here to stay. The 1966 edition of the Physicians' Desk Reference[4] lists 42 tranquilizers indicated for treatment of anxiety and apprehensive states.

'Tranquilizers' have differences in action, differences in effect

Although all tranquilizers are intended to calm anxious patients there *are* differences in their actions — and in their effects. They have been divided into three categories — the rauwolfia group, the 'minor' tranquilizers, and the phenothiazines.[5]

Although the tranquilizing effect of rauwolfia has been known for centuries, its use as an antipsychotic agent in current practice has diminished.[5]

A 'minor' tranquilizer is often prescribed to achieve more than one effect. Thus, besides being tranquilizers some of these compounds may be muscle relaxants, antihistaminics with some calming action, anticholinergic sedatives, or antispasmodics.[5]

The phenothiazines are considered 'major' tranquilizers because they alter psychotic behavior.[1] This classification may have done them more harm than good because it implies that the phenothiazines should be reserved for the more severely disturbed. This is not necessarily true.

The phenothiazines — and the problem of sedation

One of the problems of prescribing phenothiazines for ambulatory patients has been the fear that excessive sedation will impair the patient's ability to function. This, however, is less of a problem with some of the phenothiazines.

"Clinically they may be differentiated primarily in terms of their potency and the extent of their sedative effect, which appear to be inversely proportional. That is, the least potent, the one which is used in highest dosage, chlorpromazine, is the most sedative, while the reverse holds true for fluphenazine."[6]

In a recent report on various studies conducted over several years evaluating 360 patients treated for anxiety and stress with seven phenothiazines, this inverse relationship of potency to sedation was confirmed.[7] Also under consideration was the degree to which the particular phenothiazines neutralized anxiety (the angolytic index). Interestingly enough there was, again, an inverse relationship. The most sedative of the phenothiazines appeared to be the least active in neutralizing anxiety. Fluphenazine, one of the least sedative, on the other hand, was found to be most effective in relieving anxiety.[7]

RELATIVE SEDATIVE AND ANGOLYTIC INDICES OF PRINCIPAL PHENOTHIAZINES*

DRUG	SEDATIVE INDEX	ANGOLYTIC INDEX	BASED ON STANDARD DOSE OF
Chlorpromazine	100	15	25 mgs.
Triflupromazine	100	15	25 mgs.
Thioridazine	90	17	25 mgs.
Perphenazine	15	25	4 mgs.
Carphenazine	25	25	25 mgs.
Trifluoperazine	3.3	95	2.0 mgs.
Fluphenazine	3.5	100	2.5 mgs.

*adapted from Sainz[7]

Prolixin is therapeutically effective without excessive sedation

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Contraindications: Do not use with high doses of hypnotics or in patients with subcortical brain damage. Use with caution in patients with a history of convulsive disorders. Severe reactions may occur in patients with idiosyncrasy to other centrally-acting drugs, and severe hypotension may occur in patients with special medical disorders, e.g. mitral insufficiency and pheochromocytoma.

Precautions: Effects of atropine, anesthetics and C.N.S. depressants may be potentiated. Hypotension may occur in patients undergoing surgery. Do not use epinephrine for treatment of the hypotensive reactions which may appear in patients on phenothiazine therapy.

Side Effects: Extrapyramidal reactions, allergic skin reactions, the possibility of anaphylaxis, drowsiness, visual blurring, dizziness, insomnia, nausea, anorexia, salivation, edema, perspiration, dry mouth, abnormal lactation, polyuria, hypotension, and jaundice and biliary stasis may occur. Routine blood counts are recommended to determine possible blood dyscrasias; if symptoms of upper respiratory infection occur, discontinue drug and institute appropriate therapy.

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Children: Total Daily Dosage

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6-12 mo. . ½ tsp. q.i.d. (4 mg.)
1-2 yr. . . . ½ tsp. 5 times daily (5 mg.)
2-5 yr. . . . 1 tsp. t.i.d. (6 mg.)
5-8 yr. . . . 1 tsp. q.i.d. (8 mg.)
8-12 yr. . . 1 tsp. 5 times daily (10 mg.)

Adults: 2 tsp. 5 times daily (20 mg.)
(or 2 tablets q.i.d.)

*Based on 4 cc. per teaspoonful.

Maintenance dosage may be as low as one-fourth the initial daily dosage.

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Side Effects: Side effects are relatively uncommon but among those reported are gastrointestinal irritation, sedation, dizziness, cutaneous manifestations, restlessness, insomnia, numbness of extremities, headache, blurring of vision, swelling of the gums, euphoria, depression and general malaise.

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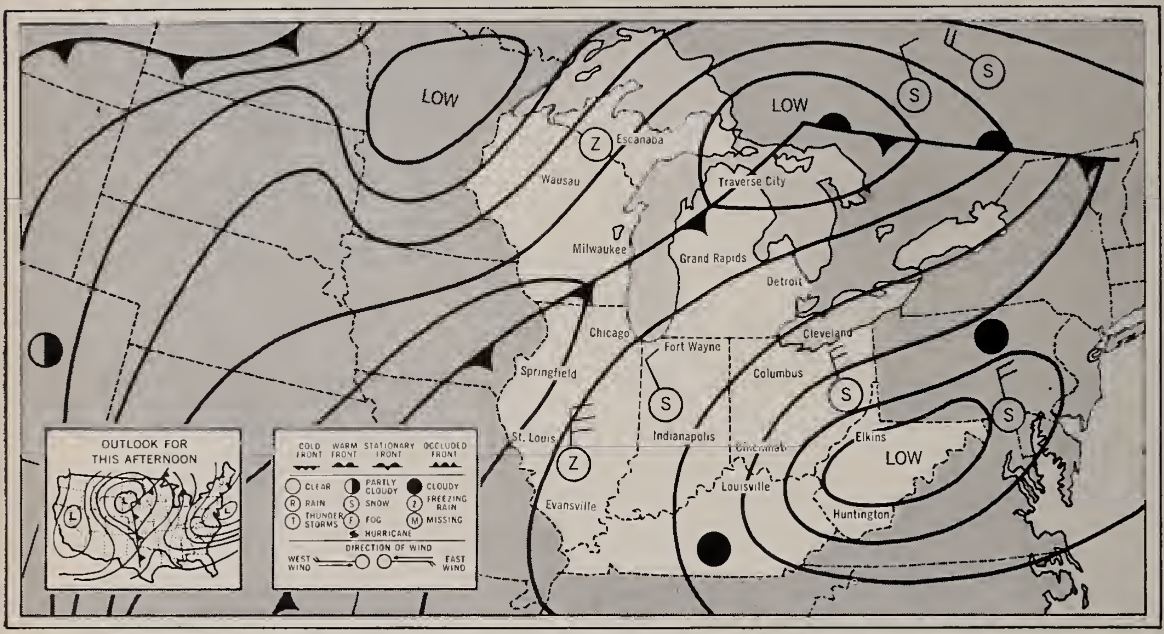

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Brucellosis

Three cases of brucellosis occurred in Philadelphia County in 1965, each involving contact with animals in the same slaughter house

DANIEL L. HARRIS, M.D. AND CHARLES M. THOMPSON, M.D.
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Brucella infection is rare in Philadelphia, as it probably is in other large urban areas. In this report we describe three cases occurring in 1965 (one of which was reported in 1966) in the County of Philadelphia.

The incidence of brucellosis in the County of Philadelphia was provided by the Bureau of Communicable Diseases:

1959	0
1960	3
1961	2
1962	2
1963	1
1964	0
1965	2
1966	1

All three patients were employed in the same meat-packing house at the same time. All presented with initial complaints of fever and malaise appearing insidiously so that they were treated for varying periods of time for viral infections. The Health Department is currently investigating the source of infection and contiguous infection in other employees.

Brucellosis in the United States has become a disease of farmers, veterinarians, dairymen, laboratory workers and meat handlers. The disease is seen most frequently in the large packing centers of the midwest, and during the years from 1952 to 1963 Hendricks and Borts [2] state that 4,093 cases were reported in Iowa to the Department of Health. These authors further state that there is a reduction in the number of cases seen in farmers and an increase in the number of cases seen in meat-packing house employees.

The infecting organism may be one of three main species; B. abortus, B. suis, and B. melitensis. Specific oxidative metabolic tests to separate these species into strains may be used.[3] Each of these species has an animal vector; B. abortus-cattle, B. melitensis-goats, and B. suis-swine. Numerous other animal species may also be infected.

The vaccination of herds against B. abortus by the use of strain nineteen seems to be responsible for reducing the occurrence of brucellosis in cattle in this country.[4] Infection with B. melitensis from goats has never constituted a major problem in the United States. According to Meyer, recent tabulations of epidemiologic histories from 1960 and 1961 showed that packing house workers had the highest incidence and swine were the most probable source of infection. He comments on the report from Iowa in 1931 concerning the clinical and serological study of the occupational risk in the meat packing industry; the attack rate of brucellosis in packing houses was 245 cases per 100,000 or fifty times higher than the rate in urban residents not in contact with livestock.[4]

Hendricks and Borts [2] state that even though blood tests suggest a comparatively low prevalence of the disease in swine, a significant human health hazard still exists. Swine raisers, their families and swine handlers are repeatedly exposed to infected animals. In a large packing house, one infected hog passing through the slaughtering line may expose hundreds of employees. Even with only 1 percent of the hogs infected, up to fifty infected hogs could be slaughtered in one day, and each employee on the killing floor would be exposed repeatedly in that same period.

The most common route of infection is by contact with infected animals or on premises contaminated by the excreta or membranes of animals. An employee with even a minute laceration of the skin would be infected readily. Ingestion of unpasteurized milk and fresh unpasteurized milk products may also cause infection. Human transmission has been documented rarely. It has also been shown that infection can be carried considerable distances through the air by aerosol suspensions.[5]

The micro-organism tends to localize in the tissues having an abundance of reticuloendothelial cells, such as liver, spleen, lymph nodes and bone marrow. Less frequently, the meninges, long bones, spine, endocardium, kidneys and male genitalia may be invaded.[6]

The diagnosis of brucella infection is often difficult. The importance of the occupational history is emphasized in the three cases described in this report and any unexplained fever or generalized malaise in farmers, packing house workers, veterinarians or laboratory workers should make one suspicious of brucellosis.

The diagnosis is made by obtaining blood cultures, which in a high percentage of cases are positive. In all three cases presented here cultures were slow to grow and were considered to be sterile at the end of one week. Cultures therefore should be watched for thirty days and the laboratory should be notified of the possibility of brucella infection so that appropriate culture media are used. Positive cultures have also been obtained from bone marrow, cerebrospinal fluid, duodenal drainage, urine and excised lymph nodes.

Presumptive evidence of the infection may be obtained from the serum agglutin levels. A four-fold rise in the titer in the course of the disease or a titer above 1:320 is good evidence of current or very recent brucellosis. Titers between 1:80 and 1:320 may be seen in those with sub-clinical infection in the past. Titers of 1:80 to 1:160 with clinical illness call for repeated cultures and agglutination tests. In some cases both cultures and titers may be negative. The low titer

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may be significant and if the disease is strongly suspected, investigation for blocking antibodies is indicated.

The complications of brucellosis are numerous. Among these are neuropsychiatric disorders; acute psychoses, chronic encephalomeningitis, and chronic reactive depressions have all been noted. Bone and joint involvement, cardiac involvement, endocarditis and hepatic or splenic involvement are not unusual.[7]

The treatment of brucellosis includes bed rest, sedation and analgesics. Tetracycline 0.25 to 0.5 g. four times each day for three weeks is the treatment of choice. A small number of patients may relapse, necessitating a second course of treatment and dihydrostreptomycin may be added to the regimen. ACTH and prednisone have been used, but should be reserved for seriously ill patients.

The prognosis of brucellosis is good. The mortality rate is about 3 percent. Relapses occur and may be due to the host's reaction to the infection.

Measures to prevent contamination of animal handlers must be instituted. The use of gloves and careful disposal of waste is important. Employees with any open wound, regardless of how small, must be kept away from the animals. Once a case is recognized in a slaughter house, immediate control measures must be employed.

Case 1.

This was the first hospitalization of this twenty-eight year old Negro male who entered on December 6, 1965 with fever and malaise.

Three weeks before admission he began to feel weak and feverish, with headache and chills. There was no cough, chest pain, nausea, vomiting, abdominal pain, diarrhea or dysuria. He was seen at the emergency room of another hospital where his temperature was 104°, and he was given Penicillin and sent home. Later that week he attempted to work but had to leave because of weakness. Two days prior to admission he was seen by a physician who gave him a sedative and told him to continue taking the Penicillin. A cardiac murmur was noted at this time.

On the morning of admission to the Philadelphia General Hospital, his temperature was greater than 104°. He had a mild cough, productive of greenish sputum without pleuritic pain. His throat was dry but not sore. There were no symptoms referable to the digestive or urinary systems except for loss of appetite. He denied muscular or joint pains, stiffness or swelling.

He was married and had one child. His wife was in good health but his child currently had an upper respiratory infection. There was no history of exposure to infectious diseases. He worked in a slaughter house and came in contact with the blood and flesh of pigs.

On physical examination the blood pressure was 130/75, the pulse rate was 112, the respirations were 20 and the temperature was 104 degrees. He was alert, cooperative, well developed and in no acute distress.

There was hyperemia of the pharynx; the neck was supple. Two small lymph nodes were present in the right anterior cervical chain. The lungs were clear to percussion and auscultation. The heart had a grade 2/6 systolic ejection murmur along the left sternal border. The abdomen was soft and non-tender. There were no masses or organomegaly. The extremities showed no cyanosis, edema or clubbing. No splinter hemorrhages or evidence of inflammation were seen. There was a healed wound of the left index finger. The neurological examination was within normal limits.

A spinal tap showed an opening pressure of 122 and a closing pressure of 118. The fluid was clear and colorless. Spinal fluid sugar was 68, chloride 682, protein 15, white blood count 1, red blood count 41 and culture was sterile. Kolmer test was negative.

The urine showed pH 5, specific gravity 1022, protein—a trace and sugar and acetone negative.

The fasting blood sugar was 109, the blood urea nitrogen was 12, the hemoglobin was 13.3, WBC was 5,400 with 2 metamyelocytes and 38 band forms, 32 segmented forms, 22 lymphocytes and 6 monocytes. The platelets appeared adequate and the red cells were normocytic.

Sputum culture showed normal respiratory flora. Urine culture showed no growth. X-rays of the chest and abdomen were normal. An electrocardiogram was normal.

The febrile agglutinins reported on December 7, 1965 were B. abortus 1:1280, B. tularensis negative, Proteus OX19 negative, Salmonella somatic BCD negative and Salmonella flagellar BCD negative.

Sputum smears and subsequent cultures for acid fast bacilli (AFB) were negative. Cold agglutinin titer was 1:20.

Blood cultures showed no growth for the first week and then demonstrated a growth of gram-negative rods which were identified as Brucella Suis.

The temperature gradually came down from 104° to 100° without therapy. On December 10, 1965 the patient was started on tetracycline 250 mg. four times daily, and his temperature continued to come down to normal levels. He was treated for three weeks.

Repeated B. abortus titers:
December 13, 1965—1:2560
December 21, 1965—1:2560
January 17, 1966—1:2560

Case 2.

This was the first hospitalization of this twenty-five year old Negro male, who entered on December 9, 1965 with a cough, decreased appetite, generalized weakness and decreased hearing in the right ear.

Six weeks prior to admission he had started working on a conveyor belt at a slaughter house. Four weeks prior to admission he developed a cough with minimal hemoptysis, diffuse muscle aching of the paraspinal, biceps and deltoid muscles, diarrhea and night sweats. He then developed tinnitus and some decrease in auditory acuity of the right ear. He noted a 20 pound weight loss over this time and had a poor appetite with generalized weakness. He had noted a partial ptosis of the right eye for one year. Several months previously he had lacerated his left index finger and this had been slow to heal. There was no known exposure to any infectious diseases.

The blood pressure was 120/80, the pulse was 80 and the temperature was 100°. The patient was mentally dull but in no acute distress. Ptosis of the right eyelid was noted. There was a dry, scaling dermatitis of both forearms. The lungs were clear to percussion and auscultation. The heart and abdomen were within normal limits. There was nystagmus on lateral gaze, greater on the right. There was slight decrease of right corneal reflex. The Weber test was lateralized to the left. Air conduction was decreased bilaterally but more so on the right. Motor and sensory examinations were intact. There was clumsiness of the right arm, with rapid, alternating movements. The deep tendon reflexes were slightly decreased symmetrically. A spinal tap showed an opening pressure of 145 and a closing pressure of 95. The fluid was clear and colorless. Spinal fluid sugar was 48, chloride 708, protein 36. There were no cells and the culture was sterile. Urinalysis was normal. The hemoglobin was 13.3, WBC 5,580, with 22 bands, 10 segmented neutrophils, 47 lymphocytes, 20 monocytes and 1 eosinophil. The fasting blood sugar was 86 and blood urea nitrogen was 13. The calcium was 9.5, serum glutamic oxaloacetic transaminase 38, bilirubin 0.6, total protein 8.0 with 3.88 albumin. Sia water test for macroglobulins was 1 plus. Skin tests for tuberculosis, blastomycosis, histoplasmosis and coccoidiomycosis were negative. A trichinella skin test was negative.

An electrocardiogram, X-rays of the skull, chest and lumbar spine were normal. Planograms of both petrous pyramids showed slight sclerosis of the petrous ridge on the right. A brain scan was interpreted as normal. An electroencephalogram was interpreted as abnormal, showing minimal irregular slowing of the right occipital area. A culture of the spinal fluid for AFB was negative. Febrile agglutinins on December 16, 1965 were B. abortus 1:2560+, P. tularensis—negative, Proteus OX19—negative, Salmonella somatic BCD—negative, Salmonella flagellar B-1:80 C-1:40 D-1:80. Blood cultures showed no growth for the first week and then demonstrated a growth of gram-negative rods which were identified as brucella suis. The patient was treated for three weeks with tetracycline 0.5 gram, 3 times daily. The temperature returned to normal levels. Repeat brucella titer on December 29, 1965 was 1:2560+.

Case 3.

This was the first hospitalization of this twenty-five year old Negro male who entered on January 20, 1966 with weakness and a low grade fever.

He had felt well until five weeks before admission when he noted fever and chills without other complaint. He was seen in the receiving ward on two occasions and the only positive findings noted were 10-15 white blood cells in the urine. He was treated with Gantrisin (R) and referred to the clinic where his temperature was 101° but the remainder of the examination was normal. A urinalysis was normal except for 2-3 white blood cells. The hemoglobin was 13.3, white blood cells 4,950 with 12 bands, 21 segmented forms and 67 lymphocytes with a few atypical forms. A PBI was 6.0. A chest x-ray and IVP were reported as normal.

He was seen again in the clinic on the day prior to admission where his temperature was 100.6°, and he was complaining of a sore throat. A urinalysis showed 2-3 white blood cells. He was admitted on the following day because of the persistance of malaise and weakness. He had been working in a slaughter house.

Physical examination on admission showed a blood pressure of 120/80, a pulse rate of 120 and a temperature of 100.6°. The patient was in no acute distress.

There was mild injection of the pharynx. The skin showed a maculopapular, nonpuritic rash over the neck, anterior chest and back. The neck had 2 small lymph nodes in the right anterior chain.

Urinalysis was normal. The hemoglobin was 12.6, the white blood count was 4,770 with 22 bands, 22 segmented forms, 55 lymphocytes and 1 monocyte. The fasting blood sugar was 96, blood urea nitrogen was 13, alkaline phosphatase 7.7, acid phosphatase 0.5, phosphorus 4.0, SGOT 69, serum glutamic pyruvic transaminase 53, LDH 480, serum cholesterol 157 and serum bilirubin 0.2. A heterophile agglutination was negative. Sputum smear and culture for AFB were negative. A trichinosis flocculation test was negative. Febrile agglutinations on January 21, 1966—B. abortus 1:5120+, P. tularensis—negative, Proteus OX19—negative, Salmonella somatic—B and D negative, C 1:40, Salmonella flagellar—BCD negative. Blood cultures demonstrated a growth of gram-negative rods which were identified as brucella suis.

During the first five days of his hospital course his temperature progressively rose to 106°. On the fifth day tetracycline 0.5 grams, three times daily, was started and within forty-eight hours his temperature returned to normal levels. He was seen ten days following discharge at which time he was afebrile but still experiencing weakness and malaise.

Summary

The first three cases of brucellosis reported in the County of Philadelphia since 1964 are described. Each followed the other in a period of several weeks after contact with animals in the same slaughter house.

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School Health Report By AAP

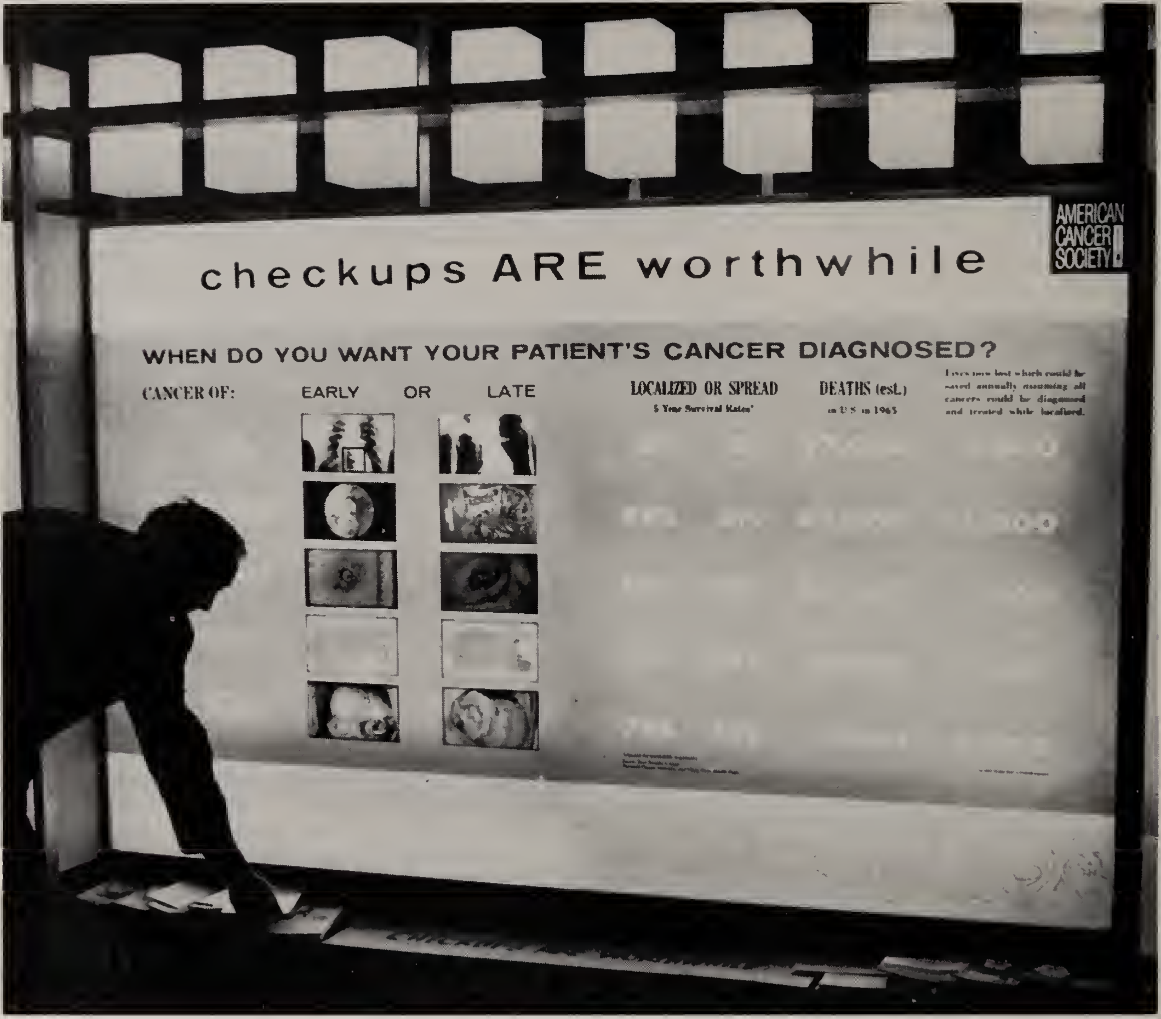
The American Academy of Pediatrics released a comprehensive report dealing with all aspects of school health entitled "Report of the Committee on School Health of the American Academy of Pediatrics." The Report provides information on essential school health matters, emphasizes subjects relating to school health policy, and outlines techniques used in school health services. It was developed to meet these primary objectives:

a. Provide physicians with an understanding of the procedures and philosophies of school health programs.
b. Develop an awareness among physicians of their responsibilities and opportunities in the area of school health.
c. Define the physician's role in implementing school health programs.
d. Clarify for teachers and administrators the physician's role in implementing these programs.
e. Provide guidelines for medical students, residents and practicing physicians relating to methods and techniques of school health services.

Subjects covered include the physician's function in school health appraisal programs, school health as related to adolescents and handicapped children, school failure and its problems, sports medicine, management of emergencies, health of school personnel, health education for school children and education of physicians in school health.

Single copies of the publication are available from the American Academy of Pediatrics for $2.00 each.

CANCER FORUM PAGE


AMERICAN CANCER SOCIETY
checkups ARE worthwhile
WHEN DO YOU WANT YOUR PATIENT'S CANCER DIAGNOSED?
CANCER OF:
EARLY
OR
LATE
LOCALIZED OR SPREAD
5 Year Survival Rates*
DEATHS (est.)
in U.S. in 1965
Lives now lost which could be saved annually assuming all cancers could be diagnosed and treated while localized.

Yes, we believe checkups are worthwhile, as this display shows. You may have missed it at the annual meeting in Pittsburgh. The right hand column of figures stands for "Lives now lost which could be saved annually *assuming* all cancers could be diagnosed and treated while localized."

And these figures are only on *cancer.* You know what other problems a good physical exam can turn up.

Here is the American Cancer Society suggested check list for office detection of cancer.

1. HISTORY—check the seven danger signals.
2. COMPLETE PHYSICAL EXAMINATION WITH EMPHASIS ON THE FOLLOWING:
   A. Head and neck: inspect and palpate the head and neck, tongue and oral cavity.
   B. Use the laryngeal mirror.
   C. Examine the breasts in every patient.
   D. Inspect the entire skin, including vulva, scrotum, soles of feet, palms of hands.
   E. Routinely perform a pelvic examination and make a vaginal smear.
   F. Do a rectal examination and make a test for occult blood on a finger specimen of stool.
3. CHECK HEMOGLOBIN—if anemic, look for lesion of gastro-intestinal tract.
4. DO URINALYSIS—look at sediment.
5. OBTAIN X-RAY FILM OF CHEST.
6. SIGMOIDOSCOPY.
7. BIOPSY ACCESSIBLE LESIONS.

Every doctor's office should be a cancer detection center.

PENNSYLVANIA DIVISION PHILADELPHIA DIVISION

american cancer society

PENNSYLVANIA CANCER FORUM PAGE—presented cooperatively by the Council on Scientific Advancement of the Pennsylvania Medical Society, the Philadelphia and Pennsylvania Divisions of the American Cancer Society, and the Cancer Control Section, Pennsylvania Department of Health.

Renal Colic

Self-limited extravasation of contrast material into the peripelvic and retroperitoneal areas is found to be an indication of acute ureteral obstruction

EMMETT M. COOPER, M.D.
Lancaster, Pennsylvania

The excretory urogram is one of the methods most commonly used to evaluate patients with renal colic or other clinical evidence of a ureteral calculus. Plain films may reveal an opaque deposit but a urogram is usually necessary to confirm the location of opaque calculi or to suggest the presence of nonopaque stones. Roentgen signs of acute ureteral obstruction are familiar to most clinicians. However we have recently encountered a more obscure sign of acute ureteral obstruction: extravasation of contrast material into the peripelvic and retroperitoneal areas.

Case Report

A sixty-three-year-old male was seen in the receiving ward of Lancaster General Hospital complaining of right flank pain of twelve hours duration. The onset of the pain was sudden and it was of colicky nature. A similar episode of left flank pain had occurred two years previously and was diagnosed as colic accompanying passage of a ureteral calculus.

Physical examination revealed marked tenderness to percussion over the right renal area but no other abnormality was found.

Admission blood morphology, urinalysis and blood serology (Kolmer and Kline) were within normal limits except for 70-80 red blood cells high power field (RBC/HPF) in the urine.

On admission a radiograph of the abdomen showed no definite abnormality. An excretory urogram done on the second hospital day showed prompt bilateral excretory function and the bladder, left kidney, and ureter were normal (Fig. 1).

The right kidney pelvis and ureter filled more slowly than the left. The right collecting system was dilated; the ureteral caliber was normal however, and the offending calculus was not definitely found. Extravasation of contrast material occurred into the peripelvic area and into the retroperitoneal region medial to the pelvis.

On the third hospital day a retrograde pyelogram was performed which confirmed these findings (Fig. 2).

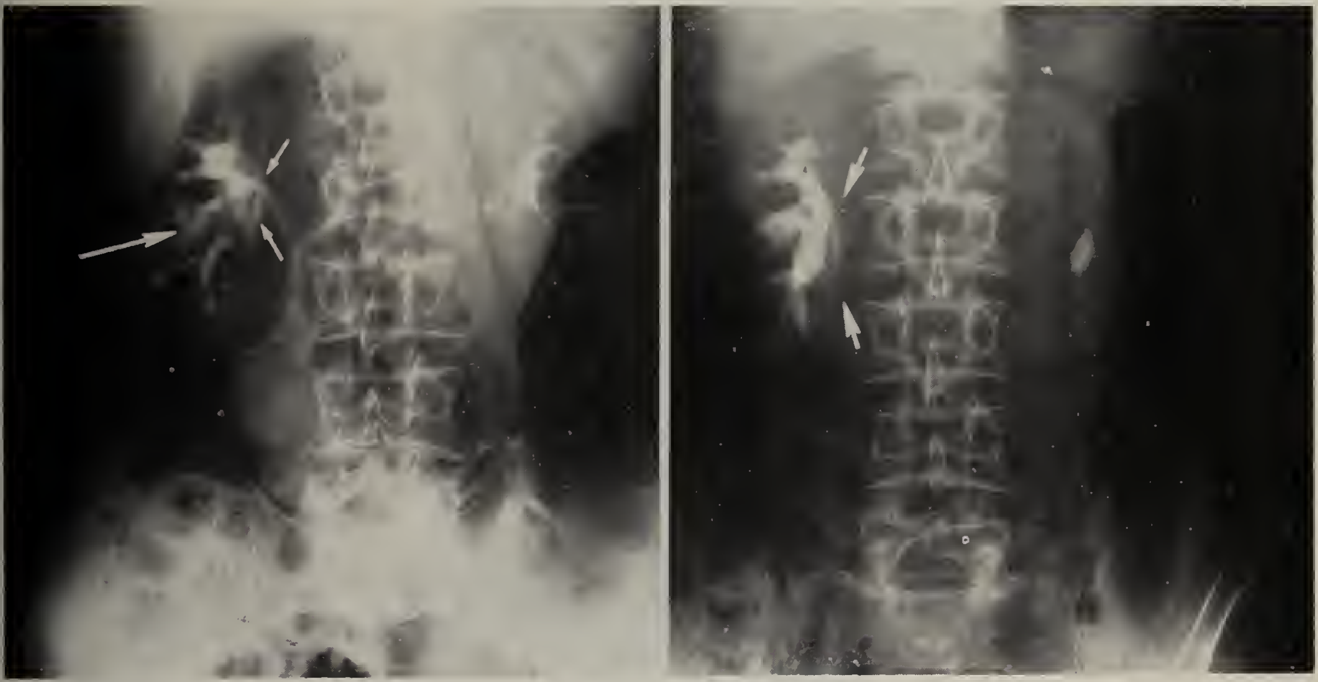


Fig. 1. The excretory urogram performed on the second day of hospitalization about 36 hours after the onset of right ureteral colic: (Left) the 10 minute film shows slight dilatation of the right collecting system with extravasation of contrast material about the middle calyces (large arrow) and pelvis (small arrows); (Right) the 15 minute film shows contrast material medial to the right kidney pelvis (arrows) in the retroperitoneal area.

Although no calculus was found in the urine, the right flank pain and tenderness gradually subsided and the patient was discharged on the tenth hospital day. The discomfort resolved completely at home. A repeat excretory urogram done eight weeks after discharge showed that the urinary tract had returned to normal (Fig. 3).

This patient's urogram and pyelogram illustrate self-limited spontane-

■ **Dr. Cooper is associated with the department of radiology at Lancaster General Hospital.**

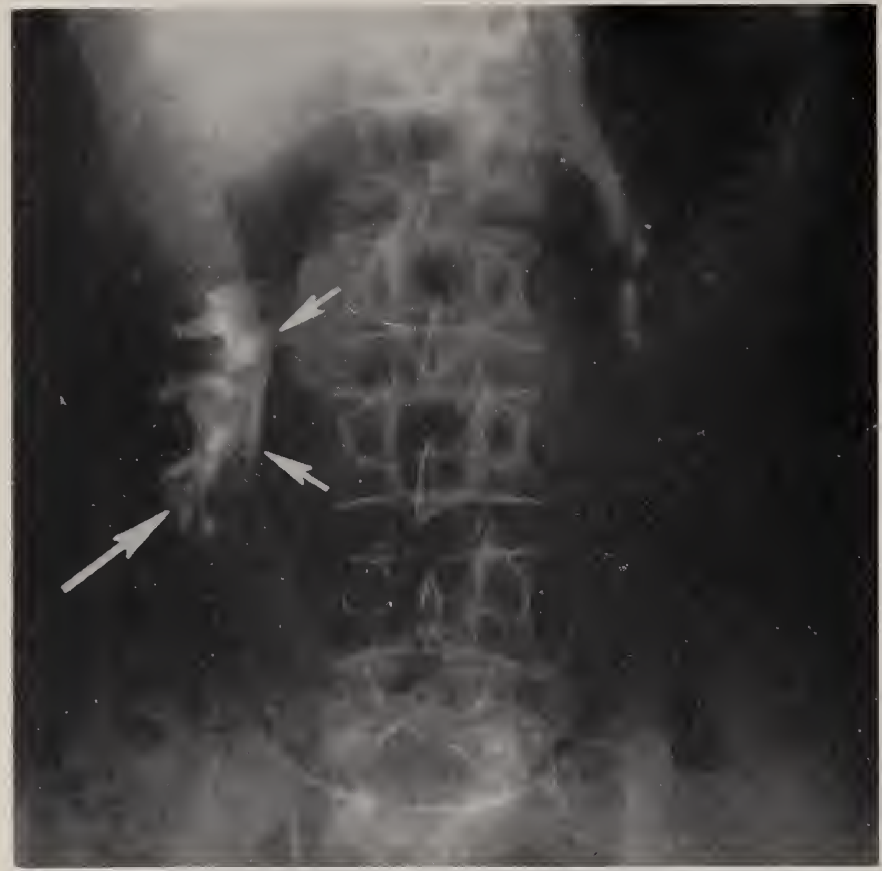


Fig. 2. The retrograde pyelogram performed on the third day of hospitalization confirms extravasation about the right calyces (large arrow) and pelvis (small arrows).

ous extravasation of contrast material during renal colic. There was no external trauma or previous instrumentation.

Pathophysiology

Olsson[1] reviewed 100 cases showing extravasation during urography and found all to have some degree of acute ureteral obstruction. Abdominal (ureteral) compression bands had been used in ninety-four of the patients while in the other six patients leakage occurred during renal colic. Sudden increase in intrapelvic pressure can result in rupture of the thin walled calyceal fornix. Commonly the fornix remains intact and the hydrostatic pressure of the urine trapped in the pelvis may exceed the excretory pressure in the tubules. A nephrogram is produced by the contrast material concentrated and trapped in the renal cortex. The collecting system filled with nonopacified urine is not visualized. Occasionally rupture of the fornix allows leakage of urine and contrast material into the peripelvic tissue. Human[2] experimentally demonstrated the potential route between the fornix and peripelvic region by injecting kidneys obtained from autopsy specimens with India ink. The loose peripelvic tissue allows free spread of fluid about the collecting system and proximal ureter, limited only by Gerota's fascia. A deficiency in this fascia may allow more distant spread into the retroperitoneal area.[3] The fornix may be ruptured by overfilling the collecting system during retrograde pyelography, producing similar extravasates.[4]

Differential Diagnosis

Leakage of contrast material may accompany traumatic kidney rupture. The history of injury should indicate this diagnosis. Urographic signs of ureteral obstruction are absent. Kidney laceration will often allow leakage into the cortex and subcapsular regions. Hematomas and extravasated urine often produce calyceal distortion and deform the renal border.

Local extravasation may occur into neoplasms and renal abscesses. Backflow may occur into tuberculous papillary ulceration. Prolonged urographic observation will usually show the limited extent of backflow in these entities.

Sudden ureteral obstruction results from accidental ligation of the ureter and may lead to spontaneous extravasation.[2, 3, 5] The onset of this

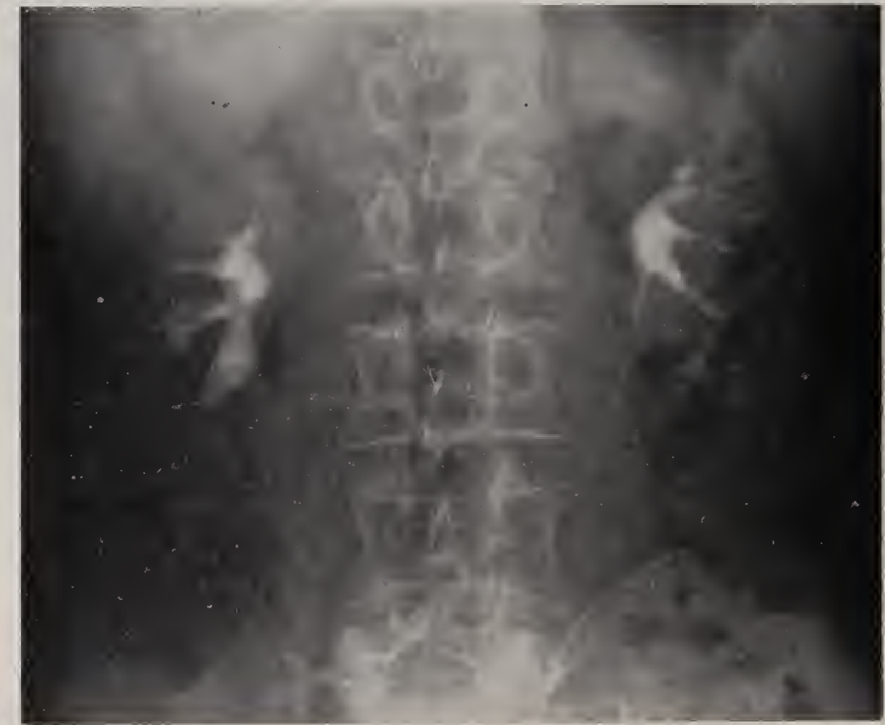


Fig. 3. The excretory urogram performed 8 weeks after discharge from the hospital showing resolution of the right pyelocaliectasis and absence of extravasation.

problem soon after surgery should suggest the cause of the obstruction.

Previous mention has been made of the backflow occurring as a result of ureteral compression during urography.[1]

Course

Extravasation during acute ureteral colic is usually self-limited. Temperature elevation and prolonged flank tenderness may be due to leakage of urine.[1] Superimposed infection is rare. When obstruction is relieved surgical exploration is not often indicated.[3] Study of chronic ureteral obstruction with extravasation has revealed evidence of peripelvic and periureteral fibrosis and granulomas.[2, 4, 6]

Summary

An obscure sign of acute ureteral obstruction was found on a urogram of a patient suffering renal colic. Extravasation of contrast material occurred into the peripelvic and retroperitoneal regions with other accompanying evidence of the presence of a ureteral calculus. After the symptoms subsided a urogram showed that the urinary tract had returned to normal.

One who understands the differential diagnosis of extravasation should be able to recognize when it indicates ureteral obstruction due to a calculus. Such leakage is usually self-limited. When obstruction is relieved surgery is seldom required.

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Jefferson Genetics Unit

Heading the newly-established Genetic Counseling Unit at the Jefferson Medical College and Medical Center is Roy G. Holly, M.D., professor and head of the department of obstetrics and gynecology.

Designed to provide comprehensive advice and counseling in regard to hereditary diseases and malformations, the unit is multidisciplinary, according to an announcement by William A. Sodeman, dean and vice president for medical affairs. Cooperating departments include those of medicine, pediatrics, preventive medicine, obstetrics and gynecology, neurology, and psychiatry.

Patients must be referred to the service by a physician, a dentist, a municipal or state health agency, or any voluntary health agency. The Pennsylvania Department of Health is providing some of the financial support for the unit.

Neurology Grant to Hahnemann

The National Institute of Neurological Diseases and Blindness of the National Institutes of Health has awarded Elliott L. Mancall, M.D., Professor of Medicine (Neurology); Head, Section of Neurology, $100,000 to establish a new training program in neurology at the Hahnemann Medical College and Hospital. The grant, which extends over three years, will permit Hahnemann to establish a resident training program and to develop the research and under-graduate teaching programs.

The program to be developed will train physicians for either academic careers in neurology or medical practice in the specialty of neurology. The residency program to be developed will accommodate six residents, two in each of the three years of the program. Rotating training programs for interns and residents in related areas of medicine are planned and an expanded teaching program for the students in the medical college will be developed.

In the undergraduate teaching program, this grant will permit the development of curriculum for the teaching of neurology as it relates to anatomy, physiology, pathology and pathophysiology in the pre-clinical years. In the clinical years, the students will participate more in the care of neurological patients both in the hospital and in the Out Patient Clinic. These students will also take part in ward rounds and conferences and will be encouraged to participate in research programs in neurology.

Junior Partner

Blair R. Behringer, President, Student American Medical Association, said in an address to the House of Delegates of the American Medical Association, June, 1966: "As I have progressed in my medical studies, and have come to know more and more of the leaders of the medical community, I am sure I have detected in certain quarters a sense of 'uneasiness' about today's students of medicine. I fear that there are some who see him as a card-carrying member of the so-called 'beat generation.' They picture him as a bearded political radical enroute to a draft card burning; an individual who has completely lost touch with the practical realities of political and economical life. Those of you who have attended SAMA functions on the local, regional or national level realize that this fear is unfounded with regard to the students who attend those meetings; but somehow there is a feeling that 'back there' at school, is a hotbed of unrest . . ."

"Gentlemen, the medical student of today is in general better educated, better informed on the issues of the day, more concerned about the future of medical practice in this country, and more inclined to do something about it, than you were when you were in medical school . . ."

"What is the medical student of today really like? He is dedicated to the ideals of his profession. He is too busy to be 'beat,' too tired to concern himself with trivialities, too involved with the fabric of life and death to become blasé about the world he lives in. The demands of six to ten years of post-baccalaureate education do not dismay him. The real and potential changes in his professional way of life simply challenge him. He realizes that medicine involves not only the practice of an art and a science, but also continuing involvement in the social and political inter-actions that have shaped our past, and will shape our future. Have no fear for him; have no concern about him. When the time comes for him to take his place beside you, he will be ready to assume the mantle of leadership in our great profession."

"What does he ask of you? Only this, consider him to be what in truth he is—your junior partner in the unending effort to maintain and improve the standard health care available to all . . ."

SURGICAL MORTALITY IN RECENT YEARS

Selected Experiences, 1950-1965

Nature of Surgery and Disorder	Period Covered	Number of Cases	Surgical Mortality Percent	Hospital or Medical Center
Abdominal surgery				
Gallbladder disease	1950-62	2,358	1.7	New York Hospital-Cornell Medical Center, New York City
Cirrhosis of liver	1951-61	120	11.7	Mayo Clinic, Rochester, Minn.
Duodenal ulcer	1953-63	450	1.6	Veterans Administration Hospital, Des Moines, Iowa
Gastric ulcer	1958-62	106	2.8	Roosevelt Hospital, New York City
Infantile pyloric stenosis	1956-63	412	0.7	Children's Hospital and Harper Hospital, Detroit, Mich.
Esophageal hiatus hernia	1952-62	92	1.1	Sanders Clinic, Memphis, Tenn.
Inguinal and femoral hernias	1950-59	1,162	0.3	Mary Hitchcock Memorial Hospital, Hanover, N. H.
Appendicitis	1952-64	2,866	0.3	Iowa Lutheran Hospital, Des Moines, Iowa
Ulcerative colitis	1950-61	77	3.9	New York Hospital-Cornell Medical Center, New York City
Diverticulitis	1958-63	122	2.9	Laney Clinic, Boston, Mass.
Cardiovascular; other vascular surgery				
Tetralogy of Fallot	1956-61	146	28.8	Johns Hopkins Hospital, Baltimore, Md.
Ventricular septal defect	1956-63	500	10.6	Baylor University Medical Center, Houston, Texas
Aortic stenosis or regurgitation	1957-65	251	21.9	Massachusetts General Hospital, Boston, Mass.
Mitral stenosis	1960-62	165	6.1	University of Pennsylvania, Philadelphia, Pa.
Pulmonic stenosis	1957-61	108	2.8	Children's Hospital, Boston, Mass.
Coronary artery disease—revascularization	1962-63	76	3.9	Cleveland Clinic, Cleveland, Ohio
Heart block—implanted pacemaker	1960-64	77	1.3	Beth Israel Hospital, Boston, Mass.
Aneurysm of abdominal aorta	1962-63	533	5.3	Baylor University Medical Center, Houston, Texas
Arterial occlusion, peripheral	1952-64	816	4.3	Henry Ford Hospital, Detroit, Mich.
Arterial insufficiency, cerebral	1957-65	320	4.4	Baylor University Medical Center, Dallas, Texas
Head and neck surgery				
Thyroid disease	1958-63	1,000	0	Washington Hospital Center, Washington, D. C.
Obstetric and gynecologic surgery				
Ectopic pregnancy	1950-59	268	0	Jewish Hospital of Brooklyn, New York City
Pelvic relaxation; benign tumors, etc.	1952-61	22,147	.07	Mayo Clinic, Rochester, Minn.
Proctologic surgery				
Rectal prolapse	1952-64	53	0	Cincinnati General Hospital, Cincinnati, Ohio
Thoracic surgery				
Pulmonary tuberculosis—resection	1950-63	100	7.0	State Tuberculosis Hospital, Louisville and Lexington, Ky.
Urologic surgery				
Benign prostatic hypertrophy	1950-60	113	1.8	Passavant Memorial & Cook County Hospitals, Chicago, Ill.
Urinary-vaginal fistula	1951-60	262	0	Mayo Clinic, Rochester, Minn.

The experiences reported on the above table augur well for the future. Surgery remains one of medicine's principal weapons. In the field of cardiovascular disorders it holds great promise in conditions not amenable to medical treatment. Children, elderly persons and poor-risk patients of all ages are accepted for surgical treatment today for an expanding variety of conditions. The increasing recourse to surgery is indicated in a recent National Health Survey report which shows a yearly count of 13,885,000 operations performed on 13,100,000 patients, exceeding by nearly 3½ million the total operations for as recent a year as 1958. Sources of data in this table are available upon request.

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*Schiller, I. W., and Lowell, F. C.: New England J. Med. 261:478, 1959.

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Coronary Arteriography

Part I

What accounts for the recent increased interest in the therapy of coronary artery disease?

The development of selective coronary arteriography as a safe and practical clinical tool best explains the revived interest. The usual means of patient evaluation by history, physical examination, electrocardiography and roentgenology have failed to provide an answer in patients with symptoms suggesting angina pectoris until frank myocardial infarction occurred. By the use of coronary arteriography, it is now possible to demonstrate objectively whether significant arterial disease is present in such a situation. If the study demonstrates narrowing or obstruction of the branches of the coronary vessels, the definite diagnosis is established without question. Before coronary arteriography was available, the evaluation of patients receiving either medical or surgical treatment for the disease was difficult and purely subjective. With studies before and after a test medication, it is now possible to see whether a given drug is indeed a coronary vasodilator or not, so that medical treatment can be more suitably directed. The evaluation of the various surgical procedures that have been attempted in the treatment of coronary artery disease has likewise been subjective. Through coronary arteriography we are able to demonstrate whether a procedure, such as the internal mammary artery ligation, has failed to produce an increased circulation to the myocardium. However, in patients who have had an implant of the internal mammary artery into the myocardium, collateral channels have been demonstrated arising from the implant and communicating with the patient's coronary arterial system, thus producing perfusion of a previously ischemic myocardium. The demonstration that one of the surgical procedures does produce perfusion of a deficient myocardium has resulted in the recent upsurge of interest in treating coronary arterial disease by surgical methods. Thus, coronary arteriography has demonstrated that an effective method of therapy is available and the test also provides us with the means for selecting these patients. In addition, the use of this method to exclude disease in the patient with very atypical symptoms and equivocal findings on electrocardiography can prevent the forming of a cardiac neurosis.

How is coronary arteriography performed?

The test is performed under mild sedation with a barbiturate and local anesthesia. A tapered tip catheter is introduced into the right brachial artery through a cutdown. The catheter is then directed retrograde through the subclavian and innominate arteries into the ascending aorta. The catheter tip is manipulated against the aortic valve leaflets and curved into the ostium of the left and right coronary arteries. After the catheter is demonstrated to be in the coronary ostium, with a small injection of contrast material, the study is performed by the injection of two to ten cc. of the same contrast medium into the coronary vessel. This is accomplished either manually or with a pressure injector that can accurately deliver small volumes of the dye under relatively low pressures. The catheter manipulation and injection of the opaque medium is done with monitoring for position on a six-inch image intensifier, and the injections are recorded on 35 mm. motion picture film at sixty exposures a second. In addition, the pressure at the catheter tip is monitored continuously with a suitable manometer except during the actual period of injection when a continuous electrocardiogram is made. Both records are viewed on an oscilloscope so that the operator is constantly aware of the effects of his manipulations.

What about patient positions?

Multiple cine records are made in both left and right anterior oblique positions, with the patient's rotation in the left anterior oblique position being varied between thirty and sixty degrees, and in the right anterior oblique view between ten and thirty degrees. These multiple studies are necessary so that all portions of the coronary vessels are viewed. Superimposition of the vessels is eliminated in this manner. The studies can then be repeated after a dose of an effective coronary vasodilator, which will produce dilatation of the uninvolved portions of the vessel and not alter the diseased portions. Following the arterial studies, the catheter can then be manipulated into the left ventricle for ventriculography. This would demonstrate any of the complications of coronary artery disease such as ventricular aneurysm, mitral insufficiency, septal perforation or diffuse fibrosis.

■ William G. Leaman, Jr., M.D., questions Stephen A. Zubritzky, M.D., Director of the Cardiopulmonary Laboratory, St. Francis Hospital, Pittsburgh, Pennsylvania.

William G. Leaman, Jr., M.D., Fellow, Council on Clinical Cardiology of the American Heart Association, edited this Brief for the Council on Scientific Advancement, in cooperation with the Pennsylvania Heart Association.

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EDITORIALS

Motives

We have heard much about the image of the physician in the eye of his fellow citizen; there seems to be no end to this discussion. A recent comment from Great Britain on the nature of medical practice in the United States is less than complimentary but may prove useful as a basis for reflection and for examining our self-image.

An able report is given in SCIENCE, 28 October, 1966 regarding the large number of British physicians who took the current E.C.F.M.G. examinations, recently given in London. The unprecedented number of examinees aroused fears that the already great exodus of English doctors might be on the increase. This led to some comment from the Minister of Health as well as some observations by journalists which indicated that our British cousins see American Medicine as different from their indigenous variety. It seems that they feel that we look on the practice of Medicine as a money-making pursuit while in the United Kingdom it is regarded as a professional service. In short, these commentators see the two largest branches of the English-speaking profession as holding very different ideals and very different images of themselves.

This is worthy of notice because we certainly want to maintain as good a *public* image as we can. Still, our self-image is much more important. We cannot be the best doctors in the world with an inferior view of ourselves.

The good doctor must perforce be an idealist. If the cynical view that moneymaking is our first concern be true I consider that we cannot help but give inferior medical care to our patients. We will all reject this, but the problem is not simple—these are difficult times for the idealist. His philosophy is being attacked on all sides. His hospitals display plaques asking people to honor the physician, but many seem to be trying to undermine the physician. The government and other "big" agencies demonstrate how much the physician is needed in civilian and in military life, but may seem to conspire to diminish his stature. Public and private organizations extol the gift which doctors have conferred upon our citizens in giving us length of days, but the public complains that the medical man is impersonal and busy with science. In spite of it all, I observe that nearly all physicians remain idealistic. They maintain their idealism throughout their lives, although they may try to thwart it and usually do succeed in concealing it. Walter Pater might have been speaking of physicians when he wrote: "We need some imaginative stimulus, some not impossible ideal such as may shape vague hope and transform it into effective desire, to carry us year after year, without disgust, through the routine-work which is so large a part of life."

The alarm of the British over the threat of an exacerbation of the medical sector of their "brain drain" led to the gratuitous overseas analysis of our ideals and the animadversions upon our motives in the United States. It was suggested that the doctor was lured to these shores by the prospects of higher income and more satisfactory conditions of practice but that the innate British concept of Medicine was repelled by our view of it as a profit making pursuit. The idealism of the British doctor is thought to be largely absent over here. Those who wish to emigrate are described as cynical and selfish, especially since the British taxpayer has partially subsidized their medical education.

It is my thesis that the doctor's desire to be free to care for his patient with a minimum of interference from *any* outside quarter is a manifestation of his high ideals. He can hardly be felt to be cynical if he suspects that Government will not make things better, cheaper or smoother.

It is my further thesis that the doctor's desire to pursue the profit motive is *not* reprehensible. I am much aware that I am in practice for a living and I share with my fellow practitioners a real pride in professionalism. I cannot think that any other reason for practicing medicine is likely to produce good medical care. Moreover, I submit that the physician had better be free to practice for fair fees in this capitalistic society in the same spirit as other professional men. Unless we find a way to raise a generation of celibate and medically monastic physicians periodically, doctors had better be treated as economic equals with other highly educated men. This is not to say that they do not expect to obey the laws and restraints of economics and civilization. But neither can they be expected to be indifferent to decent living, education for their children and similar extravagances. It is evident that the architect, the poet, the artist, the sculptor can produce ideal art in comfortable circumstances quite as well as in a cold attic.

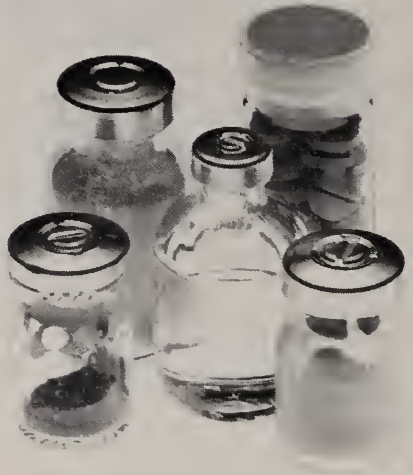
The British seem to be making a fundamental error. To foster the idealism of their doctors, it would be better to give it free rein by wiping away the doctor's resentment over his economic subservience and thus allow his idealism to act for the good of his patients.

A doctor's medical ideals may not be easily visible. The goals and aspirations of medical men are as variable and as hard to pinpoint as those of other people. But, whatever else he is, the doctor must be an idealist. When he was a medical student his ideals were as shining and apparent as the love of the bridegroom whose heart is on his sleeve. But, having followed the great calling of medicine for years may cause the doctor to be less obvious in his idealism. Now it has been tried by experience and polished by use so that it has the quality of the love of a husband who has endured and shared. Far from being a weaker variety, this tried and true idealism is a finished product and has melted into the total personality. It does not need to be worn like a pennant.

But, to be an idealist, the doctor does not have to give up all the emoluments of free enterprise or the advantages of civilization. The doctor as an idealist might also, in second place, be a good sportsman or he might be uninterested in sport; he might be a good businessman or a poor one; he might be neat or careless; he might agree or disagree with you in politics. But he still holds the ideal of service to mankind and he quietly puts this first above all other things.

against the usual gram-negative urinary pathogens

Why use five...where **one** will do?



In a recent 217-patient hospital study,[1] urinary tract infections were treated with a variety of widely prescribed antimicrobial agents including: a sulfonamide (40 patients), chloramphenicol (20 patients), nitrofurantoin (33 patients), nalidixic acid (30 patients), tetracycline (27 patients), colistimethate sodium (22 patients)...and 2 combinations of 5 agents each (45 patients). The 2 combinations were selected to afford maximal theoretical antibacterial coverage against the usual urinary pathogens. They were (1) tetracycline, chloramphenicol, nitrofurantoin, ristocetin and polymyxin B; and (2) tetracycline, chloramphenicol, erythromycin, nitrofurantoin and colistimethate sodium.

This clinical study shows that the two combinations of antibiotics were not superior to some of their single components. The authors point out that antibiotic antagonism often negates theoretical advantages of multiple therapy. Coly-Mycin Injectable (colistimethate sodium) was one of the single components that was shown to be equal to the combinations and eradicated bacteriuria in two-thirds of the patients.

Theoretical choice of multiple antibacterial therapy has been shown to be no more effective than one well-chosen agent which also offers least patient exposure to possible side reactions, toxicities, allergic manifestations and higher drug costs.

1. McCabe, W. R., and Jackson, G. G.: New England J. Med. *272*:1037, 1965.

in gram-negative urinary tract infections often the single well-chosen agent

Coly-Mycin® Injectable
(colistimethate sodium)

Indications: Especially indicated for the treatment of severe acute and resistant chronic urinary tract infections due to sensitive strains of gram-negative organisms. Also indicated in respiratory tract, surgical, wound and burn infections and in septicemia due to sensitive organisms. Particularly indicated when any of these infections are caused by sensitive strains of *Pseudomonas aeruginosa.*

Adverse Reactions: Occasional reactions such as circumoral paresthesias, tingling of the extremities, pruritus, vertigo or dizziness may occur. Reduction of dosage may alleviate symptoms. Therapy need not be discontinued, but such patients should be observed with extra care.

Warning: Patients should be cautioned not to drive vehicles or use hazardous machinery while on therapy.

Precautions: In cases of impaired or suspected renal impairment, use with greater caution and reduce dosage in proportion to extent of impairment. Transient elevations of BUN have been reported. As a routine precaution, appropriate blood studies should, therefore, be made during prolonged therapy.

As with all polypeptides, the possibility of muscular weakness, including apnea, due to inadvertent overdosage or normal dosage in the presence of impaired renal function, should not be overlooked. In cases of apnea, medication should be promptly discontinued and assisted respiration given until serum levels fall and normal breathing is restored.

Other antibiotics, such as kanamycin, streptomycin, dihydrostreptomycin, polymyxin, and neomycin, may also have varying neurotoxic or nephrotoxic potential. They should be used with great caution concomitantly with Coly-Mycin Injectable (colistimethate sodium).

For deep intramuscular injection only.

Dosage: By the I.M. route only, in 2 to 4 divided doses ranging from 1.5 to 5 mg./Kg./day (0.7 mg. to 2.3 mg./lb./day). Average adult dose is 2.5 mg./Kg./day (1.1 mg./lb./day). In the presence of bacteremia, septicemia, or other serious infection, greater than average doses may be required; however, maximum daily doses should not exceed 5 mg./Kg. (2.3 mg./lb.) where renal function is normal.

Not recommended against Proteus.

Colistin is also available (as colistin sulfate) in: Coly-Mycin® Pediatric for Oral Suspension (not for systemic use), and Coly-Mycin® Otic with Neomycin and Hydrocortisone.

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Controversy in Today's Medical Education

Current problems and possible solutions emphasize the need for cooperative effort in order to achieve the goal of better health for all people

George T. Harrell, M.D.
Hershey, Pennsylvania

The medical schools of this country recognize that the public and the medical profession expect the educational programs to prepare physicians to care for sick people in the communities where they live. The continued interest of the profession is crucial in helping medical educators find better ways to meet that goal.

The health of people in this country is the best in its history. The first half of this century has seen a great increase in the life span of both men and women. In 1920, the average life span of men and women was 54.1 years. In 1963 it was 69.9, with women living several years longer than men.[1]

The major causes of death during the first part of this century have begun to come under control. The major causes are no longer acute infections, but are chronic and degenerative diseases which have a natural history that extends throughout the life of the patient. This change has come about largely through the prevention of disease and through the general improvement of the living conditions and the nutrition of the population.

A change in the character of illness seen by the physician has occurred. Early in the century pneumonia and other acute respiratory diseases, tuberculosis, dysentery, and enteric infections were the major causes of death. Control of the environment, particularly food and water supplies, sewage disposal and programs of immunization in infants and children against specific acute infections have been very effective. Heart disease, stroke and other diseases of the blood vessels, and cancer are now the great killers. In contrast to the causes of death, the causes of disability and loss of time at work include the short-lived acute respiratory infections such as the common cold, arthritis, rheumatism and emphysema, and the chronic degenerative diseases.

Is the health of our people as good as that in other countries of comparable economic status? Although mortality figures, especially in the perinatal period, and longevity statistics indicate that several northern European countries may be doing a somewhat better job than we, the United States figures are impressive. Just cited were the longevity figures. Recent infant mortality figures show a drop from 47 percent of infant deaths in 1940 to 24 percent in 1964.[2] In this country illness is more prevalent in slum areas of the large cities than in rural settings. Regardless of the type of illness and the setting in which it occurs, most medical care is given in this country by individual practicing physicians to ambulant patients seen outside of the hospital. The educational programs must recognize these facts in the training of students.

This article is the Annual Oration presented at the 117th Annual Convention of the Pennsylvania Medical Society in Pittsburgh, Pennsylvania on October 12, 1966 by George T. Harrell, M.D., Dean of the College of Medicine and Director of The Milton S. Hershey Medical Center, The Pennsylvania State University, Hershey, Pennsylvania.

Education

The educational program in medicine is the best in the history of this country. Evidence of the caliber of American medical education offered is seen by the number of students at all levels who come to this country from abroad for a portion of their professional education.

Traditionally, the training of the doctor was done by the apprenticeship method with the student attaching himself to an experienced older practicing physician. At the turn of the century, the influence of the research laboratory approach developed in European universities began to be felt. An important milestone was the publication of the Flexner report, which critically reviewed the educational program in each of the existing medical schools. As a result of this report, the number of schools was greatly reduced and alterations were made in the educational programs of these remaining schools. In effect, this report removed the primary responsibility for the educational program from the practitioners of medicine, and placed it on the universities. Much of the "Controversy In Today's Medical Education," generated by discussions on views to implement the recommendations of this report, persists to this day.

Particularly since World War II, changes in the general educational program have occurred in this country. Great improvement in the science programs of the secondary schools has been introduced. The number of students seeking higher education has vastly increased, so that it is now reaching a mass level. This general upheaval in the pre-professional educational programs has begun to be felt by the medical schools. The time is ripe for experiments in medical education. The changes ultimately made in the medical education programs as a result of experiments must take into account the great social trends of recent years as well as scientific breakthroughs which affect the practice of medicine.

Controversial Issues

Many controversial issues exist on the present status of both medical education and medical practice. Medical educators hear complaints from both the public and the profession on these issues but little dialogue or true discussion of them takes place.

Public Criticisms

The public's most frequent complaints include the following:

Education for Medicine is Too Long

The educational sequence from the pre-professional through the postgraduate training is, indeed, longer than in most other professional fields. The period of formal education is now an average of eight years, of which the longer half is the graduate portion.[3] The practice of medicine is an art which traditionally has been learned by the apprenticeship or tutorial method. Increasingly, practice has come to rest on a scientific base, a base continuously being expanded through research. The basic medical sciences are specialized extensions of the natural sciences and remain basic rather than applied in character. An explosion of factual knowledge in biomedical fields has occurred since World War II.

Medical Education is too Expensive

Medical education is one of the most expensive university disciplines. A great part of the expense is in the support of hospitals and clinics for the patient care necessary to teach the art of medicine and the application of scientific principles to the specific disease problems seen in individual patients. Both the capital outlay for physical facilities for medical education and the operating budgets for these facilities have increased greatly in the past fifteen years. Between 1958 and 1964 the total budgets of all United States medical schools rose from $319 million to $696 million.[4] The cost for capital and operating funds per student, however, is not as great in the medical school itself as for graduate students in nuclear physics or space sciences. Quality education in any graduate and professional field is expensive. With median annual tuitions and fees for medical schools ranging from $600 at state schools for state residents to $1,700 at private schools,[5] admittedly the cost to the student and his family adds up over four years. However, when we consider that total tuition and fees for all medical schools in 1964 equalled about $36 million and total expenditures equalled about $700 million, we see that the student pays about 5 percent of operating and program funds.[4]

Not Enough Physicians are Graduated

The number of places for entering students in first-year classes of medical schools has increased steadily. In 1953, 7,449 students enrolled in all United States schools and by 1966 the number was 8,760. The spurt which has occurred in the past few years is a result of federal legislation making available matching funds for construction of educational facilities. It will be some years before these students are added to the pool of physicians in practice. With two years of military service added, it will be ten years before the impact of this program is felt.

The public has sometimes expressed the belief that the number of physicians trained has been arbitrarily held down by the profession through its influence on medical schools. In fact, the limiting factor has been the availability of laboratory teaching space for the scientific base of medical practice.

The total number of applicants steadily declined in the immediate post World War II period. In the past few years this trend may have begun to reverse. In 1953, 14,678 students applied to medical schools and by 1964 this number had increased to 19,168. A slight drop to 18,703 was noted in 1965, but this probably is a one-time phenomenon. Of some concern is the fact that of 9,012 students

Dr. Harrell delivers the Annual Oration at the 117th Annual Session in Pittsburgh.

accepted for 1965 only 8,760 actually enrolled.[6]

More encouraging statistics are those concerning medical graduates. The number totaled 7,409 in 1965, an increase of 45 percent over the 5,097 in 1940.[7]

Of greater concern is the slight decline in the caliber of students admitted to medical schools as judged by academic performance in college. Medicine has had a decreasing attraction for the best students. A physician not only must have a good mind; he also must have an interest in people, with a feeling of compassion for them and their problems. These qualities are sought by other professional fields and by industry for managerial level positions. The competition for good students will increase.

Not Enough Family Physicians are Turned Out

During the four year curriculum in most medical schools, the student is trained in general principles which are applicable to family practice or to any specialty. The type of post graduate training he will take is decided by the student himself on the basis of what he wants to do and what he thinks the public wants. In 1931, 84 percent of all physicians listed themselves as general practitioners. By 1960, this number had dropped to 45 percent and to 37 percent in 1965. Of students graduating in the past year, only 15 percent indicated they intend to enter this type of practice.[3]

The public has demanded better training, more sophistication and intensive application of highly specialized techniques in its care. In many parts of the country, the patient serves as his own primary diagnostician deciding which specialist he will see for what he thinks is wrong with him. This tendency leaves the patient without a single doctor who knows all that is being done to and for him. No physician has an opportunity to follow in continuity all aspects of medical care and to evaluate the interplay of genetic factors in successive generations in a family. Only a keen, interested observer who sees all members of the household can evaluate intelligently the stresses which produce many symptoms in them. Families do not establish as close a relationship with their physician as formerly. This lack is due partly to the increased mobility of families which change residence in the same community or move to another town much more frequently than formerly.

Our Town Can't Get a Physician

In the last century, much medical care was given in the home. Each small town usually had its own physician who traveled to the patient, hence the area he could serve was limited. With the improvement in transportation and changes in purchasing practices of people with centralization of trading areas, patients began to move to physicians. The physician is more effective with the equipment available in his office and can see more patients if he spends less time in travel.

We are now an urban nation and physicians are reluctant to go to small towns where diagnostic and treatment facilities are not available for them to practice the type of medicine for which they have been trained.

Should each small community have its own physician? If medical care were rendered by a group of physicians clustered around a community hospital of sufficient size to serve a larger area, the facilities could be provided efficiently and economically.

Medical Schools Discriminate in the Selection of Students

Fewer women study medicine in this country than abroad. Over a period of years until 1951, the average percentage of women medical students enrolled in all United States schools was 5.3 percent. The small number in training was due to the limited number of applications received by medical schools. Since 1961, when the percentage was 8.5, the number enrolled has increased steadily.[8] All schools accept girls, although six indicate a preference for men. Girls are marrying earlier in this country, dropping out of school, having larger families at an earlier age than a generation ago. Of all students in medical school in a recent ten year period, 8 percent of the men and 16 percent of the women dropped out before graduation. Less than half fail academically, but women have about two and a half times as many nonacademic dropouts as men.[9] Discussion continuously takes place concerning the "wastage" of good feminine brains which could be used in many fields of endeavor in and outside the health professions. The problem is a social and cultural one.

No medical school restricts admission to members of a particular religious creed. Some schools are supported predominately by religious faiths, but take other students. More Negro students could be admitted if they were qualified. Two medical schools were founded primarily to offer training to Negroes and accept 170 each year, but both now admit other students. Legislation prohibits restriction on the basis of sex, religion or race.

Will My Doctor Keep My Illness Confidential?

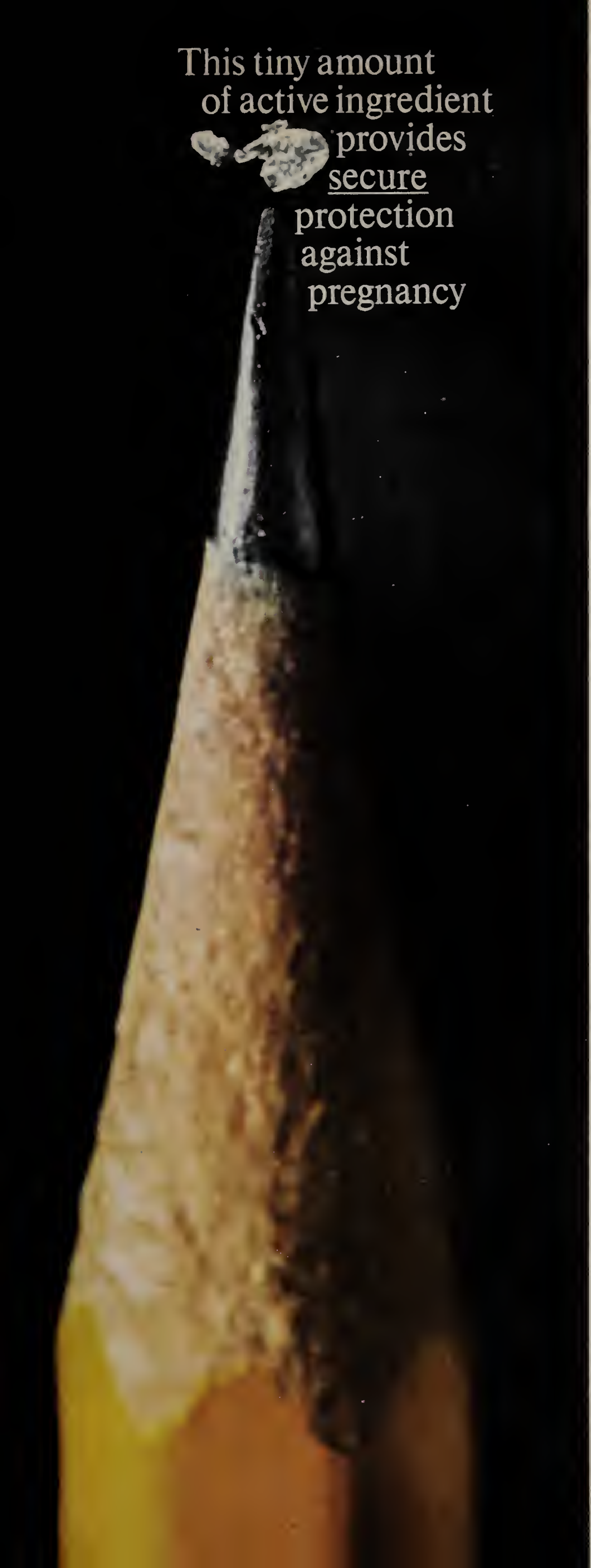
The tradition of confidentiality of data is a proud heritage of the physician. As facilities for laboratory studies become more centralized in hospitals, objective data are more widely available to scrutiny by subprofessional and technical staffs. With the great increase in volume of data, techniques for storage and retrieval by mechanical means using computers are increasing. Factual information stored in this fashion is more readily available to many more people than formerly and much must be furnished to governmental agencies and other third parties for financial and professional reasons. Subjective findings and opinion, however, will continue to be recorded in hand-written notes or retained in the memory of the physician.

This situation poses a problem to medical education. How can the use of mechanistic techniques to increase the efficiency of the physician in practice be taught without loss of the warm, compassionate human approach to the patient?

Medical Schools are Insensitive to Animal Welfare

Animals are essential for the teaching of the basic science aspects of the educational program. Reliable data both in teaching exercises and in the performance of research can be obtained only when stabilized animals are used. Medical schools are committing large amounts of money to the construction of animal care facilities which usually offer control of the environment at more delicately balanced levels than that provided for human patients. Some schools have developed farm type facilities for long-term care of animals of known background which are absolutely essential to medical progress. One has only to visit well managed animal care facilities to see the friendly reaction of dogs and other animals to the investigator who works with them to be assured of the quality of care given.

Increasingly, medical schools are placing the care of animals under a graduate Doctor of Veterinary Medicine who also assists the faculty in design of experiments to assure the



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Warnings—Medication should be discontinued pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. Medication should be withdrawn if examination reveals papilledema or retinovascular lesions. Since the safety of Ovulen therapy in pregnancy has not yet been established, it is recommended that, in a patient who has missed two consecutive menstrual periods, pregnancy be ruled out before oral contraceptive therapy is continued.

Precautions—Because Ovulen may aggravate a tendency toward fluid retention in some patients, it should be administered cautiously to patients with a history of renal or cardiovascular disease (including hypertension), asthma, epilepsy or migraine. Any possible influence of long-term Ovulen therapy on pituitary, adrenal cortical, ovarian, hepatic or uterine functions requires further study. Oral contraceptives also should be administered cautiously to diabetic patients since a decrease in glucose tolerance has been observed in some patients taking these drugs. Patients on Ovulen may occasionally show abnormal glucose tolerance tests, but this does not necessarily indicate the presence of diabetes. Significant increases in platelet count, prothrombin and proconvertin tests, plasma thrombotic activity and plasma proteolytic activity have been reported.

Since estrogens may affect results of serum protein bound iodine and other thyroid function tests, these tests should not be considered definitive until Ovulen therapy has been discontinued for at least sixty days. Adrenal steroid serum levels and excretion may be affected by estrogens; the Metopirone® (SU-4885) test of pituitary-adrenal function may also be depressed. Abnormalities in hepatic function tests have also been reported, including some interference with dye excretion by the liver. This interference may give rise to Bromsulphalein® retention and jaundice in susceptible individuals. Serious liver dysfunction should be ruled out before continuing Ovulen administration when abnormalities in liver function tests occur.

Patients with a history of psychic depression should be observed carefully during treatment with oral contraceptives, and such treatment should be discontinued if depression recurs to a serious degree. Pre-existing fibroids may increase in size during Ovulen therapy. Such fibroids may regress to pretreatment size after Ovulen is stopped. In the event of breakthrough bleeding the possibility of nonfunctional causes should be borne in mind. Additional means of contraception should be used during the first seven days of Ovulen administration in the first treated cycle, because early ovulation may possibly occur.

Side Actions—The following adverse reactions have been reported with Ovulen; however, a causal relationship to Ovulen administration has not been established in all of the listed complaints: headache, dizziness, depression, breast complaints, amenorrhea, chloasma, vomiting, allergy, edema, migraine, pulmonary embolism, thrombophlebitis, visual difficulties, nervousness, rash, itching, decrease in libido, tiredness, malaise, hair loss and hair growth. A small incidence of nausea, spotting and breakthrough bleeding has been reported; these complaints tend to diminish markedly or disappear after the first cycle of treatment. Some of these side actions have required discontinuance of the drug.

Dosage—One tablet daily for 20 consecutive days beginning 5 days after the onset of menstruation.

Before prescribing see Detailed Product Information, Ovulen.

An extensive list of references on Ovulen is included in the literature mailed to physicians.

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Contraindication—History of hypersensitivity to demethylchlortetracycline.

Warning—In renal impairment, usual doses may lead to excessive systemic accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort.

Precautions and Side Effects—Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. Use of demethylchlortetracycline during tooth development (last trimester of pregnancy, neonatal period and early childhood) may cause discoloration of the teeth (yellow-grey-brownish). This effect occurs mostly during long-term use but has also been observed in short treatment courses. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment. Side reactions include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and dermatitis. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Anaphylactoid reactions have been reported.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products.

Capsules: 150 mg; *Tablets:* film coated, 300 mg, 150 mg, and 75 mg of demethylchlortetracycline HCl.

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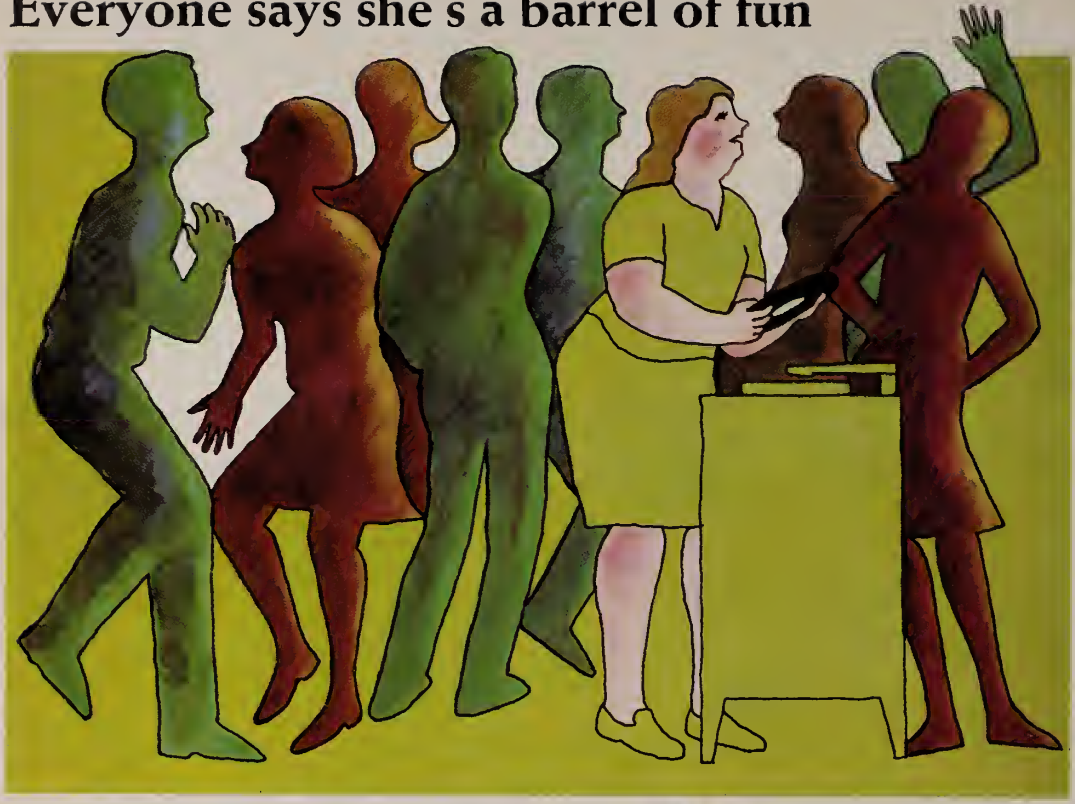

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Precautions: Use with caution in patients hypersensitive to sympathomimetic compounds, who have coronary or cardiovascular disease, or are severely hypertensive.

Dextro-amphetamine sulfate: Excessive use by unstable individuals may result in psychological dependence.

Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness.

Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.

Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness lethargy, stupor, ataxia, coma, shock, vasomotor ond respiratory collapse.

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least discomfort consistent with accurate results. The public and even the profession tend to forget that observation of animals who cannot describe their own symptoms helps to teach medical students how to care for human patients who cannot communicate because of a stroke, mental illness or other disease.

Professional Criticisms

Medical Education Is Too Specialized—The vast amount of knowledge which must be compressed into the medical curriculum increasingly requires that concepts and principles rather than facts be taught. During the four years of medical school it is impossible to cover specialized knowledge in detail. Only techniques of study and patterns of problem solving applicable to any type of practice can be taught. The post graduate specialty programs at the residency level have developed as the result of professional and public demand for better training of physicians. As late as 1927 the number of residencies approved for training was only one-third that of the number of internships. The situation now is reversed. Residencies are three times the number of approved internships. As late as 1945 only 1,308 candidates were certified by the American Boards as specialists. In 1965, the number was 5,386, which means that five of seven graduates are becoming certified.[3]

Medical Schools are Insensitive to Practice Needs—Education at the medical student level is directed toward the development of patterns of thinking, study and the approach to problem solving. The student is taught specific techniques of individual patient care. The practice he sees is heavily weighted toward hospitalized patients with acute illnesses. Teaching of the care of ambulatory patients is done in a clinic setting which does not exactly mimic the conditions of individual private practice under which most medical care is rendered.

Postgraduate training also is heavily oriented toward acute illness in hospitalized patients. The emphasis is on technical competence in the performance of procedures and techniques. Modern educational programs do not provide the tutorial approach of the preceptor in his office in day to day practice. The graduate is expected to learn the practical aspects of the economic, legal and administrative problems encountered in running an office after he completes his formal training in an institution.

Residency Programs Do Not Train For Actual Practice—Residency programs are designed to give intensive training in relatively narrow fields with emphasis on technique. The best residency programs are conducted in settings where active research is going on. The research approach leads to optimum patient care, but is often a team effort which cannot be easily reproduced in private practice.

Most residency programs do not attempt to continue the thread of teaching in the behavioral sciences which would help the resident understand the functional overlay to underlying organic disease. Many patients in private practice do not demonstrate a sufficiently advanced stage of organic disease to explain the symptoms which the patient presents. Most of these patients are not admitted to the teaching hospital so the resident does not recognize that the care of patients with symptoms produced by stresses of living will represent an appreciable part of his practice. This fact is quickly recognized by young pediatricians, for example, who find that parents require as much or more time than do the patients. The term "practice" implies that the physician traditionally has learned these things as he goes about his day to day work.

The Faculty Has Never Practiced—It is true that most teachers in the basic medical science courses hold the Ph.D. Degree. Academic careers have attracted fewer M.D. graduates into teaching in the basic medical sciences than formerly. This trend is partly economic since faculty salaries in the basic science departments have been less than the earning capacity of a physician in practice. Also, the demands in time and the intellectual approach to teaching and basic research are not compatible with an active practice.

Most medical students originally enter the study of medicine because they wish to take care of sick people. The medical school faculty in the clinical disciplines has always practiced medicine, but the major part of the practice has often been on charity patients. In general, the teaching value of a patient is not dependent on his economic status, and all patients in a teaching hospital should be assigned to students and house officers. Only in the field of psychiatry have physicians felt that the efficacy of treatment may in some measure depend on the payment of a fee for service in order to involve the patient more intimately with his own care. Medical faculty should care for a complete cross-section of society.

Too Many of the Faculty are Full Time—A faculty member's primary responsibility is the education of the students under his charge. Teaching is most effective if the student can be shown the clinical problem as soon as the new symptoms have appeared and findings are apparent. In the clinical years, neither the admission of patients who are critically ill nor the appearance of emergencies or complications can be scheduled. The faculty member must be on or adjacent to the ward, clinic, or emergency room and must be available for student and house staff teaching. It is not fair to patients of a physician in private practice to expect him to leave them for unscheduled teaching, yet this type of instruction is most effective. The proved value of full-time attention to teaching is shown by the fact that the number of full-time faculty has increased from 3,933 in 1950 to 15,514 in 1964.[10]

Improvement in patient care has come about largely through research. Research is becoming increasingly sophisticated and more and more a team effort. The physician primarily in private practice cannot control his time to the point where he can spend uninterrupted blocks of time in the laboratory frequently enough to mount an effective research program with continuity. Excellent clinical research is conducted by part-time faculty members on their patients, but basic research requires continuous concentration and attention. The time for research best can be provided if the faculty member spends his full time in the teaching institution.

Faculty Are Interested Only in Research—Full-time faculty do spend appreciable parts of their day in research. Research is a requirement in any academic position and has traditionally been a basis for advancement in fields other than medicine. It is the duty of medical school administration to see that a balance is achieved between teaching and research.

Research in medicine can be used as an effective teaching tool. The approach to problem solving as an intellectual discipline can be most dramatically reinforced by involving the student at all levels of training in research. More and more schools are providing opportunities for medical students to participate in research and to earn a combined professional and research degree at the M.S. or Ph.D. levels. The specialty boards accept up to a year of research as part of the training for certification.

In addition to its educational value, research improves the scientific base for practice and enables the practicing physician to include new drugs and methods in the care of his patients.

Students Should be Taught on Charity Patients—Traditionally, medical schools have assumed responsibility for care of charity patients in large city hospitals and used them in the teaching of medical students. With the development of full-time faculty positions, teachers began to see private patients in the medical school setting. The economic status of the patient bears no relation to his value as a teaching case, with the possible exception that the private patient as we know him today usually is a better observer, can give a more accurate history and can be depended on more to follow instructions for care than the charity patient of the past. With recent federal legislation probably eliminating the economic distinction between the private and charity patient, important new problems arise. For instance, training in techniques of operation or delivery which can only be done by one person and not repeated on the same patient. In the past, the charity patient has served for this phase of training. The public has begun to accept new patterns for training which will assure better care for all the people in the future.

No Courses are Given in the Economics of Practice—A fundamental philosophic question is whether instruction in the economics of practice is the responsibility of the medical school. Medical education is pointed toward professional training at an academic level. All schools attempt to stay away from the "trade school" approach. Some schools have offered lectures in medical economics, but they are usually poorly attended. Other schools have sponsored informal discussions with practicing physicians through the Student American Medical Association or through other extracurricular avenues. A few others have a short preceptorship with a practicing physician in the fourth year of the curriculum to afford the student an opportunity to observe the mechanics and economics of practice.

Residents often learn the economics of practice by serving as a locum tenens during vacation. Some county medical societies set up for the new physician briefing sessions which inform him of local fee schedules and "ground rules" for the legal and administrative aspects of practice. As various third party payment plans and government agencies become increasingly involved in support of patient care, the need for practical information is greater.

Dean Harrell leaves the temporary administrative headquarters of the Hershey Medical Center on another of his many commitments to the new school.

Hospitals Can't Get Interns

The internship is the first year of postgraduate training for the young physician. It is intended as an educational experience of a somewhat more practical nature than the clinical clerkships in the third and fourth years of the medical student curriculum. Medical schools do not assign students to specific hospitals for internships. The student makes his own choice, ranking hospitals in order. His selections are matched nationally against the hospitals' choices in the National Intern Matching Plan.

Students select internships on the basis of their teaching value. The programs need not be under medical school direct supervision. In fact, in 1964-65, 61 percent of available internships were in nonaffiliated hospitals. These hospitals obtained 59 percent of the available interns, but filled only 77 percent of their openings.

The hospitals affiliated with medical schools filled 83 percent of their internships in 1964-65. The number of positions requested by these hospitals was four hundred less than in the preceding year.[4]

All hospitals should review critically their training programs and reduce the number of interns recruited to that which can be well trained in the light of available resources and present responsibilities for residency and other training programs. In comparison with the eighty-five medical schools offering student training in 1963, the 800 hospitals offering internships seems disproportionately high to be able to provide good postgraduate training. The number offered far exceeds the number of graduates.

The best way to recruit interns is to have a satisfied house staff in the hospital who will tell prospects of the teaching program in operation. Occasionally, an intern will make a selection based on the salary highest, but most students look for the best educational experience.

Physicians Can't Find Time for Postgraduate Study—The need for continuing postgraduate study at periodic intervals is recognized universally by physicians. Since most physicians practice alone, it is indeed difficult to arrange to go away from home for this experience. Income stops when the physician does not see patients and emergencies force last minute cancellations of scheduled trips. For these reasons, most physicians attempt to keep up to date by reading the current literature or attending short courses or seminars.

From an educational point of view, postgraduate study should continue long enough for the physician to gain momentum in the learning experience. Two to three days is not enough. The internship or residency has been for most physicians a very effective training experience. It would be ideal for the physician to return to the setting of the teaching hospital for a period of time in the range of two to four months for a "retread" experience within a range of every five years.

To their credit, physicians are reluctant to leave their patients uncovered, but as group practice increases, members in the groups can cover each other for postgraduate training. At least one medical school is considering an exchange of senior residents with the practicing physician for the better education of both.

Newer techniques for use of radio and television are being explored by medical schools and medical societies. Groups of physicians can meet in the community hospital or school for this purpose. However, the use of "scrambled" or open TV in the physician's home or office has not proved to be as effective as had been hoped. Programmed instruction which can be done at a time and place of the doctor's choice when he is relaxed and receptive to instruction should be explored more fully.

Federal Support Means Control—Whenever government at any level contributes substantially to the support of a social activity, some control of policy is inevitable. The Surgeon General of the Public Health Service has recently reviewed this point.[11] However, the medical research programs supported by the federal government have been remarkably free of bureaucratic direction and control. The National Institutes of Health's administering of research grants through the study section technique has been very effective. Scientific judgment on fund applications by a group of peers is subsequently reviewed by a national council which includes lay members representing the public.

The extent of federal support of medical education may not be appreciated fully. In 1959, total federal support was $95 million which represented approximately 30 percent of total medical schools budgets of $319 million. In 1963, the figures were $335 million and $696 million, respectively, or 48 percent. Federal support increased 253 percent during this period in contrast to only 118 percent in total school budgets. The greatest rate of increase in federal support was in grants and contracts for teaching and training which rose from $21 to $81 million. Grants and contracts for research rose from $74 to $252 million. These funds were provided to the schools and the immediate administration of them was left at the local level. Federal review and auditing is detailed and scrupulous.

The recent congressional concern for making research results available to the public through earlier incorporation of new advances into the practice of individual physicians may mean greater interest of government in the details of practice. This trend may become more noticeable as the regional medical programs are funded and go into operation.

Schools Are Becoming Research Institutes—The dramatic advances in improvement of medical care have come largely from the results of research. The National Institutes of Health have wisely encouraged basic research programs as the foundation stone for medical progress. Basic research is difficult, if not impossible, to do in conjunction with an active practice. Medical schools are now deeply involved in both basic and clinical research. A major portion of the total expenditures of medical schools today comes from project research and research training grants as mentioned above. The program for construction of facilities for research has paid off handsomely in view of the relatively small amounts of money available annually. The recruitment of faculty members in all departments would be extremely difficult without opportunities for research and provisions for space, facilities and time.

The previously mentioned congressional concern that research results are not incorporated quickly enough into practice are emphasized by the evidence that the rate of growth of research will now slow down through smaller annual increases in appropriations. A balanced accommodation is at hand. It would be a tragic mistake and blow to the health of the American people to restrict the research programs. The medical schools can see that research is incorporated into the fabric of the educational program to the benefit of the student and the patient.

Schools Don't Take The Proper Students—The desire to be a physician is not enough to insure admission to medical school. Motivation must be supported by proved ability and academic performance. The scientific base of medical practice is becoming increasingly complex, but an understanding of it is necessary to insure optimum patient care. A practicing physician must have an interest in people to be an effective practitioner, but this interest without knowledge and intellectual ability to apply it is not enough to insure good care.

Medical schools attempt to evaluate the intellectual capacity and inherent ability of students through programs of testing which give an objective measure against national standards of all prospective students. The Medical College Admission Test, coupled with the actual performance of students in the academic work they have chosen for pre-professional training, is weighed along with subtle, intangible, subjective factors. Most students are personally interviewed. Evaluations and opinions are requested from faculty members who have taught the student, family physicians and others. The "good boy" has an adequate opportunity to make his case for admission to school. He should, how-

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ever, be prepared to accept another goal in which he can contribute to human health if he is not admitted to the M.D. Program.

Admissions Committees Are Too Scientifically Oriented—It is true that the greatest number of failures in medical school occur in the first and second years of the curriculum. It is during this time that the basic medical sciences are taught. Since the number of students who can be graduated is determined by the number who can be accommodated in the laboratories of the basic medical science departments, performance in science courses is carefully examined by Admissions Committees. Admission or rejection is not determined by these grades alone. Overall performance in college, year in and year out, has proved a reliable predictor of performance in medical school. There is no doubt that selection procedures are rigorous, but the nationwide drop out and failure rate over the four years still is in the range of 12 percent of the entering class.[4] This low rate compared to other forms of higher education is indicative of the efforts of medical faculties to prevent wastage of money and effort on students who have motivation but not adequate ability and drive. Most medical admissions committees do contain clinicians who can be depended on to evaluate the factors of personality and interest to balance the basic scientists' concern with scientific ability.

Students Lose the Human Touch in School—Medical educators are posed with a true dilemma. The educational process must develop effective habits of analysis and study. The most effective intellectual technique of analysis is commonly called the scientific method. In it the student recognizes the problem, looks at the facts available, plans the collection of additional data to answer specific questions, evaluates the data and draws a conclusion. This process is applied to the care of patients with diagnostic and therapeutic problems. The scientific method requires a cool, objective, dispassionate approach. Patients, however, are people and they wish to be handled from a warm, compassionate, humanistic point of view. Increasingly, medical schools are experimenting with techniques to see that both necessary points of view are incorporated in the educational program.

Possible Solutions

The medical schools of this country are exploring possible solutions to these controversial issues. The time is particularly propitious since an unusually large number of new medical schools are in the process of development. The experiments in medical education must be continued for some years, preferably until graduates are in practice, before an attempt at critical evaluation is made.

The following brief descriptions of new programs are the answers of specific schools to some of the criticisms by both the public and the profession.

Education is Too Long, Expensive and Specialized—Several of the new schools were planned and started as two-year schools. Rutgers, New Mexico and Hawaii all were placed on the university campus for better utilization of general university resources. New Mexico and Rutgers already have announced that on the basis of experience they have immediate plans to continue students into the third and fourth years of the curricula and, hence, to become full four-year medical schools. These experiments already appear to indicate that developing schools should plan complete four-year curricula from the beginning.

At the University of Vermont some course work with a small group of students in the senior year of the College of Arts and Sciences has been interdigitated with that in the first year of the medical curriculum. Stanford University moved its medical school from the city of San Francisco to the main college campus at Palo Alto to achieve a better university educational setting and a greater accessibility to the arts faculty. The curriculum was lengthened to five years in the college of medicine to permit the equivalent of one year of work in the college, primarily to fill in gaps and to extend general knowledge usually obtained in the pre-professional years. Neither of these experiments is intended to shorten the overall educational span.

Johns Hopkins University has instituted an experimental five-year curriculum with students dividing time for two years between its Homewood campus of the Faculty of Arts and Sciences and its medical institutions in downtown Baltimore. This program runs parallel to the traditional one in which college graduates attend the medical school for four years. The Pennsylvania State University, in conjunction with Jefferson Medical College, is conducting an experiment which telescopes the liberal arts and professional curricula. The student moves between the University Park and Philadelphia campuses, going to school around the calendar immediately after graduation from high school. He completes in five years the work required for both Bachelor's and Doctor's degrees.

Accelerated programs of abbreviated, around-the-calendar teaching, utilized by all schools during World War II, was not continued after the war ended. Almost all these students felt they were inadequately prepared and were deprived of a full educational experience. Accelerated programs force the student into situations where he must make decisions for which he is emotionally and biologically immature. The development of judgment, especially where decisions involving life and death are concerned, is a factor of maturity which is related to chronologic age. Further support of a longer overall educational span is the educational principle that greater retention is achieved if the educational process is spread over a longer period.

Several schools, recognizing the basic science portions of medical education as graduate education, teach this portion of the curriculum with graduate faculty. Brown University is conducting a six-year program which leads to a Bachelor's degree and a Master's degree in medical science. The student will then transfer to another medical school for two years of clinical work leading to the M.D. degree. The new University of California Medical School at San Diego will teach the traditional first year with faculty from the graduate school, relying heavily on the department of biology. The second year of the basic sciences will be taught by clinical faculty who have had special interest and training in the basic medical sciences. This school may have few faculty members who are traditional basic medical scientists and, according to present plans, may not have some of the usual medical school departments. It will be interesting to see whether the continuation of basic science correlation into the clinical years is achieved better with this faculty arrangement than in traditional schools.

Michigan State University has organized a College of Human Medicine as part of an existing broad biomedical program. The University has had a College of Veterinary Medicine for some years with a faculty teaching the basic medical sciences from that point of view. It will be interesting to observe how students taught basically from a broad, general biological point of view will compare with students taught more traditionally. The comparison cannot be made until students graduating from this program have completed residency training and are in practice.

Two new schools are being developed away from the parent university campus. The University of Massachusetts is being placed at Worcester because of existing hospital facilities. The Pennsylvania State University College of Medicine is being developed in the small community of Hershey because of legal restrictions on the use of funds from The Hershey Foundation. Plans for a broader program in the life sciences, in conjunction with faculty and facilities at the University Park Campus, the newly developed Capitol Campus eight miles from Hershey, and the Hershey site, indicate that the University recognizes the need for general strength and educational support. It is best if new schools can be located on major university campuses.

One new medical school is developing independently of a university base. The Mt. Sinai School of Medicine in New York City is being built around an existing teaching hospital with graduate programs for degrees in the basic sciences and with programs at residency level in the clinical disciplines. If this school does not make a university connection, it will be the first such administrative arrangement in a new school in more than a generation. The requirements for supporting faculty in the humanities and liberal arts, as well as the basic natural sciences, will be nearly as great as would be required for the establishment of a new university.

Several schools have placed emphasis on the maintenance of the state of health or "wellness" as opposed to cure of illness by naming the educational unit a health center rather than a medical center. The University of Florida is an example. At Gainesville a separate College of Health Related Professions has been organized to explore the integration of paramedical personnel into a program of medical care. The basic thesis is that those who are trained together, even though they may be at several levels, will ultimately work better together in practice in the local community.

The most widely publicized experiment within the medical school alone is the radical integration of the basic science curriculum at Western Reserve. Teaching is the responsibility of faculty committees of an interdisciplinary nature. The laboratories are general school facilities and are staffed by a trained manager who reports to central administration. The teaching starts with a basic understanding of subcellular particles and their function, progresses through the intact cell to tissues, organs and then in the clinical years to the whole man. This program has achieved international recognition, but is not being copied by many schools. Teaching of this type is very expensive in terms of faculty time. Students do not identify readily with any department or individual faculty member who is responsible for a course or traditional body of knowledge.

Not Enough Physicians Are Produced—The great cost of establishing a new medical school poses major financial problems. The only four-year schools being developed chiefly with private funds are the Mt. Sinai School and The Penn State College of Medicine at The Milton S. Hershey Medical Center. These schools are now eligible for federal matching funds for construction of a physical plant. The other twelve to twenty schools in various stages of development are expected to be state supported. Great credit should be given to the vision of the private foundations, such as the Commonwealth Fund and Kellogg Foundation, which have added private money to state appropriations and federal grants to make possible the establishment of the schools in the small states of Arizona, New Mexico and Hawaii. It would appear that future schools must be planned as state supported ones or as joint ventures of private enterprise and government.

The quickest way to produce more physicians is to increase the size of existing schools. It takes nearly ten years from the decision to establish a new school to the graduation of the first students. Under the influence of federal construction grants for expanded educational facilities, the median size of entering medical school classes of ninety-six students will approach 128 in a few years. As classes get larger, the intimate faculty-student relationship implied in the traditional preceptorship method of training becomes difficult to retain. Several schools are now as large as most medical educators feel is desirable.

One New School

Several unusual features are being developed in the physical plant and educational program of the new Pennsylvania State University College of Medicine at Hershey. The basic preparation of students will be from a multidisciplinary point of view to emphasize that the sciences involved form a broad spectrum in which the individual disciplines shade off one into another. Since students should develop a pattern of continuing self-education which they will follow effectively the rest of their professional lives, each student will have an individual study cubicle. The cubicles, or "thinking offices," are centrally located near classrooms, laboratories, the library and the wards and clinics of the teaching hospital. The ultimate purpose is to encourage the student to make the majority of his decisions with the books, journals, other information immediately at hand, and laboratory data he could accumulate in his own office or community hospital.

Students in the first two years will be taught in multidiscipline laboratories in which each student is assigned stand-up and sit-down space. The teaching laboratories will be in a wing of the Medical Sciences Building adjacent to both basic science and clinical departments, so that study, discussion, or research can be done with the faculty members in either.

In the clinical years the hospital laboratories will be organized in relation to clinical departmental office and research space so that they may also be thought of as multidiscipline teaching laboratories.

The library already has over 40,000 journal volumes and serves practicing physicians by operating a reference search and photocopy service in cooperation with the Pennsylvania Medical Society. The facility is organized as a reference library in order to start the pattern which a student will follow in his local community. If he does not have the information in his office, he will go to a reference library in the community hospital, academy of medicine, or nearest medical school.

The Hershey Medical Center will have more space per student and more diversified types of teaching space designed for specific educational purposes than any other medical school now under construction. The approach to solution of some problems outlined above will be done with the following innovations in the educational program.

Schools and Faculty Do Not Train for Practice

Historically the physician has always been a humanist. A Department of Humanities will be organized to bring this cultural heritage into perspective. Teaching in the humanities will be interwoven into the regular medical courses throughout the four years. This technique will help the student to develop a capacity to treat the whole man in the framework of his social, economic, cultural and religious life. One chair will be devoted to the History of Science, a second to Comparative Religion (world-wide), and a third to Philosophy and Ethics. Students will be impressed early with their responsibility in making decisions involving life and death and their obligations in incorporating new drugs and techniques, or in carrying out research which involves human beings.

Since medicine can be thought of as human biology in which behavior is a basic biologic phenomenon, the student must understand normal growth, development and variability from childhood through senescence. Aging will be studied as a normal biologic phenomenon and contrasted with the accumulation of the effects of chronic illnesses, which is usually called aging. A nursing home will be built after the Teaching Hospital is in operation to facilitate this phase of training.

Normal behavioral patterns must be understood before alterations in behavior induced by stress or disease can be understood. A separate Department of Behavioral Science has been organized, which will commence teaching and research in the basic science years and continue through the clinical years of the curriculum. The importance of understanding alterations in behavior will emphasize the need for proper handling of psychosomatic problems and functional overlay to existing organic disease seen by the physician daily.

Family Physicians Are Needed

Students must learn the significance of illness, as it relates not only to the patient, but also to his family and his community. The attitude of the physician, regardless of the type of practice to which he limits himself, should be that of a family physician who is responsible for decisions involving the total health of his patients. Only when a physician understands the natural history of disease and the need for continuity of care can he interpret to the patient and the family the full impact of the illness and prescribe measures to prevent or delay its progress, as well as its spread to other members. A Department of Family and Community Medicine has been organized around selected physicians who now have active family practices in the community. By referring to their patient records, which extend over a minimum period of ten years, the student can see the need for continuity in care in order to understand the progression of the disease.

Members of the Department of Family and Community Medicine will see patients in their offices in the Medical Sciences Building and on the wards of the Teaching Hospital. They will serve as preceptors to students from the first days in medical school to discuss the progression of disease as seen in the home, office, hospital, or facility for long-term care. The Department can serve as the focal point to correlate the application of the material and attitudes taught in the Humanities and Behavioral Sciences to actual practice in the community. The Departments of Humanities, Behavioral Science, and Family and Community Medicine are placed on the same floor of the Medical Sciences Building as study cubicles for all four years and the library.

By housing these faculty members in the Medical Center, the medical school has accepted responsibility for complete medical care of a segment of the community in which it is based. The patients will be the type the student sees himself caring for in his own practice in future years under conditions and in settings which are actual models of his future practice.

In this country, it is almost impossible to observe the natural history of infectious diseases since most patients with acute febrile illnesses will have been treated with some form of chemotherapy before admission to a hospital or clinic. Furthermore, widespread immunization and other public health measures have been effective in communities of all sizes. An honors elective for students in the clinical years will be offered as a dramatic reinforcement of the effect on health of basic biologic principles unaltered by the veneer of civilization or scientific preventive measures. The student would study abroad in a relatively primitive area of a developing country, apart from a major medical center or teaching hospital, and would work with a well-trained physician in a mission hospital or similar setting. He would learn that medical care can be given with relatively simple laboratory and treatment facilities and could project back to this country to see how much more effectively he can practice with the full resources of a modern community hospital.

Since the physicians in the Department of Family and Community Medicine have not worked with medical students in recent years, each is returning to university teaching hospitals for a series of three-month experiences at senior residency level. They will have the equivalent of one year of postgraduate training before the Teaching Hospital opens. This method has been proven effective in this small group of physicians as a pattern for continuing education of practicing physicians after the Teaching Hospital is in operation.

Program for Animal Care

Extensive animal facilities are being provided under the direction of a full-time graduate veterinarian for teaching and research in general biologic studies, including behavior. Central quarters are provided in the Medical Sciences Building with operating and recovery rooms, diagnostic radiology rooms and laboratories exactly as will be provided in the Teaching Hospital.

An Animal Farm located on the site and connected by a 1400 foot tunnel to the Central Animal Facility will be opened at the same time as the basic sciences wing of the Medical Sciences Building. The Farm will make possible better genetic control of experimental animals through breeding colonies and superior conditioning of animals before they are used in the teaching program. The facilities should be ideal for long-term observation of animals under chronic experimentation. The study of behavior can start with normal group and individual behavior in the breeding colonies and later can extend to children in the community schools. The facilties will permit the quarantine, holding and breeding of a wide variety of animals ranging from the traditional small laboratory animals through primates. Larger domestic animals will be kept in pastures and in an existing dairy barn.

The animal care facilities will be used for post-doctoral training programs of veterinarians with the D.V.M. Degree who wish to specialize in medical laboratory animal care. Students from the University Park Campus can be trained as animal husbandrymen for the usual small laboratory animals. These programs will provide badly needed personnel for teaching and research programs in other medical institutions in the state.

Faculty Over-Emphasize Research

Optimum patient care can be given in a setting which emphasizes the clinical research approach to patient problem solving. In the Teaching Hospital, the traditional clinical diagnostic laboratories and rooms for physiologic testing will be in a wing which is an extension of the clinical departments in the Medical School. This section, called a Clinical Study Center, will encourage a multidisciplinary approach for teaching of third and fourth year students and house officers.

This unit also will furnish an almost ideal setting for clinical research, since it will adjoin the basic research laboratories of the academic departments and the facilities designed primarily for patient care. The various activities will be grouped by physiologic systems so clinical research workers from several departments share equipment and facilities. Faculty offices and laboratories will be similarly grouped, as much as possible, in the adjacent Medical Sciences Building. This arrangement will permit teaching and research for a disease-oriented systems approach.

For example, the pediatrics and medical cardiovascular teams will be adjacent to the thoracic surgeon on the same floor as the catheterization laboratory, electrocardiographic facility, treadmill and other equipment. In the same fashion, neurologists and neurosurgeons will be on the same floor as the electroencephalographic laboratories and facilities for neurophysiologic studies in the Clinical Study Center. While this plan may place divisions of the traditional clinical departments some distance from the administrative offices and the chairmen, the improvement in teaching and research from a multidisciplinary point of view should more than justify the separation.

The Clinical Study Center can serve the acute and intermediate care beds on the nursing units of the hospital; the out-patient clinic and the minimal/self-care unit will serve ambulant patients.

The facilities of the ambulant wing offer an opportunity for research into medical care in the community through greater utilization of paramedical and ancillary personnel. This unit will permit students to experience the feeling of providing care under conditions where more responsibility for the care lies with the patient and his family.

The clinical facilities will include a minimal/self-care unit primarily for short-term patients who may require special procedures but not full nursing care. The location of these facilities in relation to the clinical study center and treatment rooms will permit their use for limited convalescence and long term continuity of clinical care research while holding down the cost for hospital services.

Individual rooms will resemble a home as nearly as possible in decor and furnishings. Provisions for a member of the family to stay with the patient will enable the education of patients, their families and the students in a meaning of the impact of disease in the family and community. The unit also will offer the opportunity for teaching home-care procedures and will be related physically to the outpatient facilities where much of the examination and treatment can be carried out.

The ambulant wing also will house the in-patient psychiatric service which is designed to point the patient back toward a useful life in the community and to train the student to help the patient meet that goal. Also furnished in a home-like atmosphere, the psychiatric service will avoid the feeling of restrictive confinement in an institution.

Summary

The public looks to the profession for the delivery of medical care. It expects guidance in the development of the best patterns for organization of facilities and programs to achieve and maintain an optimum state of health.

Medical educators, working with the profession, must provide realistic educational and training programs to prepare medical and post-graduate students at the house officer level for practice. Experiments in progress will provide patterns which could be followed in the development of new medical schools and health centers.

Cooperative efforts of organized medicine, medical schools, governments, and the public will accomplish the goal of better health for all people in the country.

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Mail Call

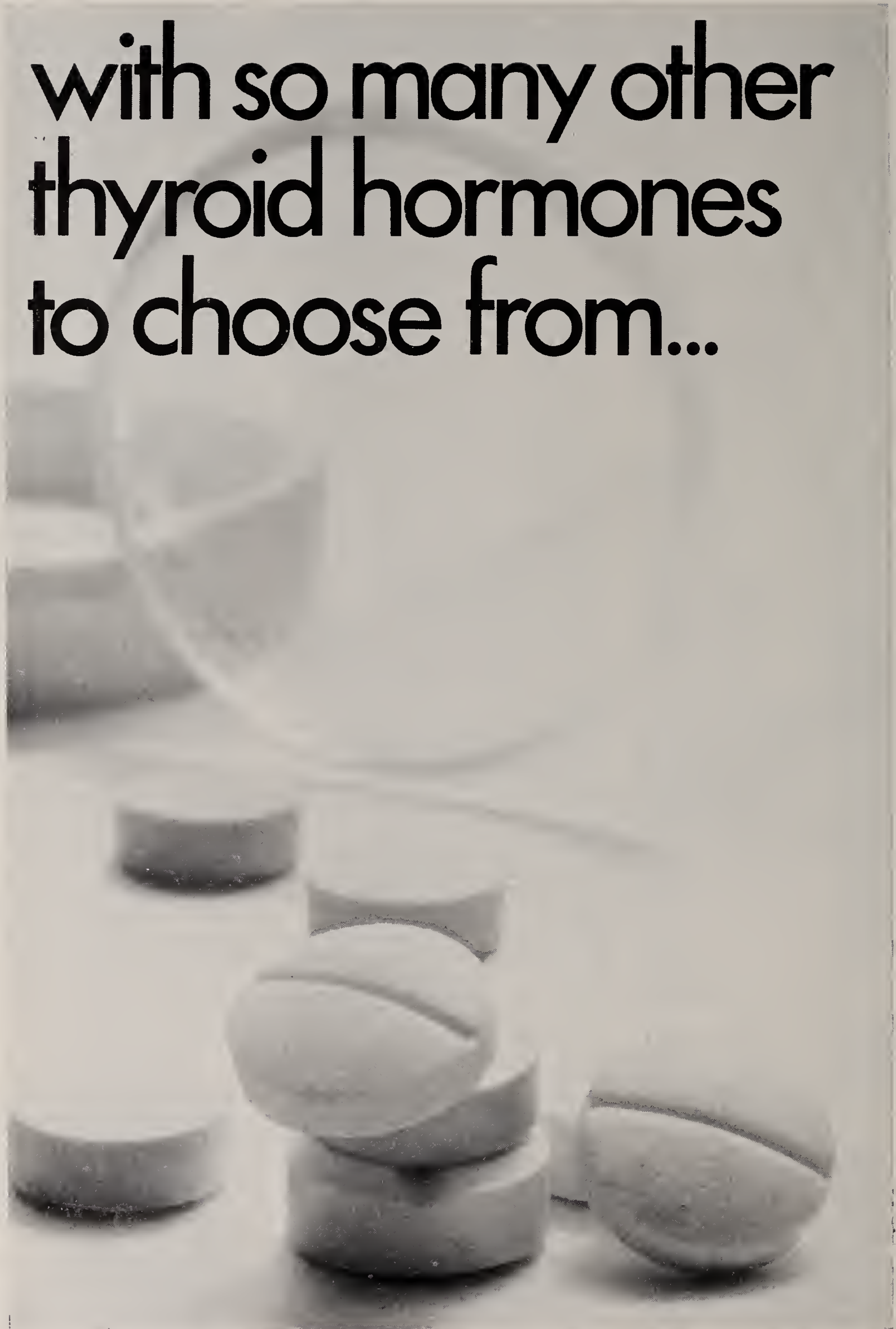
The short article entitled "Package Disaster Hospitals" on page 70 of the October issue of PENNSYLVANIA MEDICINE needs clarification. In describing a new approach to disaster medicine by reason of a reassignment of the "Package Disaster Hospitals" it is indicated that "both the AMA and the AHA have expressed satisfaction with the redirection of the stockpile program."

Insofar as the American Medical Association is concerned, this statement is premature. At its executive meeting in Boston on July 22nd, the Committee on Disaster Medical Care of the AMA took note of certain new informal information regarding the management of the "Package Disaster Hospitals" but withheld any decision until additional facts and clarification were forthcoming. The Council on National Security subsequently approved of this action.

Inasmuch as the report in PENNSYLVANIA MEDICINE was apparently derived from a News Release which was not in accord with the action of the Committee on Disaster Medical Care, I trust that you will bring this correction to the attention of your readers.

Very sincerely,
FRANCIS C. JACKSON, M.D.

Chairman, Committee on Disaster Medical Care, AMA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With SYNTHROID (sodium levothyroxine), there is little possibility of a metabolic surge that can compromise cardiac function. SYNTHROID (sodium levothyroxine), after absorption and protein binding, is released at a *physiologic* rate. *This assures a smooth response with a higher degree of safety.*

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Expect PBI readings to be in the range of 6-10 mcg. %. Count on these readings and on other parameters to be predictable in relation to the dosage you prescribe. Levothyroxine has a high binding capacity for serum proteins in contrast to other thyroid medicaments which may contain varying amounts of L-triiodothyronine which has a low binding capacity. In patients made euthyroid with SYNTHROID (sodium levothyroxine), it is therefore not unusual to find PBI levels of 8-10 mcg. %.

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Precautions: As with other thyroid preparations, an overdose may cause diarrhea or cramps, nervousness, tremors, tachycardia, vomiting and continued weight loss. Medication, in such cases, should be stopped for 2-6 days, then resumed at a lower dose level. In patients with diabetes mellitus, careful observations should be made for changes in parameters that are used to guide antidiabetic therapy. **Contraindications:** Thyrotoxicosis, acute myocardial infarction. **Administration and Dosage:** Administer tablets as a single daily dose, preferably after breakfast. Injection may be administered intravenously in solutions containing 100 mcg. per ml. **Supplied:** Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., scored and color-coded, in bottles of 100 and 500. Injection: 500 mcg., lyophilized, in 10 ml. single dose vial, with 5 ml. vial of diluent.

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SQUIBB NOTES ON THERAPY

Breast-feeding and the "modern mother"

Despite a mild resurgence of interest in the importance of breast-feeding a few years ago, many women today do not choose to nurse their young. This is for a variety of reasons—social, economic, cultural and sometimes medical. In such cases the physician's task is to find the most suitable means of preventing lactation and easing the pain of breast engorgement.

The means of therapy

The value of hormone therapy for this indication is of course well established. Both androgen and estrogen are known to inhibit the production and secretion of the lactogenic hormone by the anterior pituitary. As estrogen levels decline sharply at parturition, lactogenesis is established. When androgen and estrogen are administered to the patient before the release of the lactogenic hormone lactation and breast engorgement are usually prevented.

The time of therapy

The time of administration of this combined medication is crucial; it must be given early enough to suppress the pituitary prolactin and last long enough to permit physiologic readjustment during the puerperium. Excellent results are most often seen when therapy is administered before the onset of the second stage of labor.

However, factors other than effectiveness must also be considered. The agent selected should not interfere in any way with parturition, subsequent uterine involution and the restoration of normal ovarian cyclic function. Furthermore, it should not cause rebound breast engorgement or other manifestations of hormonal imbalance.

A balanced formulation

Providing single-dose therapy for the prevention of lactation and breast engorgement, Deladumone OB is a potent androgen-estrogen combination with a prolonged action. The optimal balance of androgenic and estrogenic hormones achieved in this preparation minimizes the disadvantages inherent in single hormone therapy, such as rebound breast engorgement. Involution of the uterus and resumption of menstrual cycles are not affected.

As reported in a recent published study (Roser, D. M.: Obstet. & Gynec. *27*:73, 1966), Deladumone OB provided good suppression of breast engorgement in 95.3% and suppression of lactation in 81.1% of 86 obstetrical patients. These results are in general agreement with those of many earlier investigations; in several studies this injectable androgen-estrogen combination proved to be superior to oral medication.

Dosage:

As a single injection of 2 cc. before the onset of the second stage of labor.

Contraindications:

Established or suspected mammary cancer or genital malignancy.

Precautions and Side Effects:

Certain patients may be unusually responsive to either estrogenic or androgenic therapy. In such individuals virilization, uterine bleeding or mastodynia may occur.

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Deladumone® OB

Squibb Testosterone Enanthate (180 mg./cc.) and Estradiol Valerate (8 mg./cc.)

Single-dose injection for lactation inhibition

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MEDICAL SOCIETY NEWS

Teaching Session '66!

Pictorial highlights of The 1966 Annual Session provide only a slight glimpse of the total success enjoyed by the convention this past year

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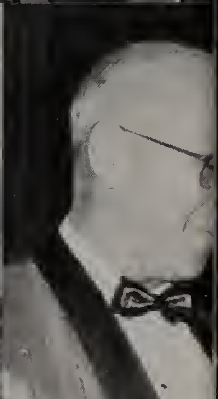

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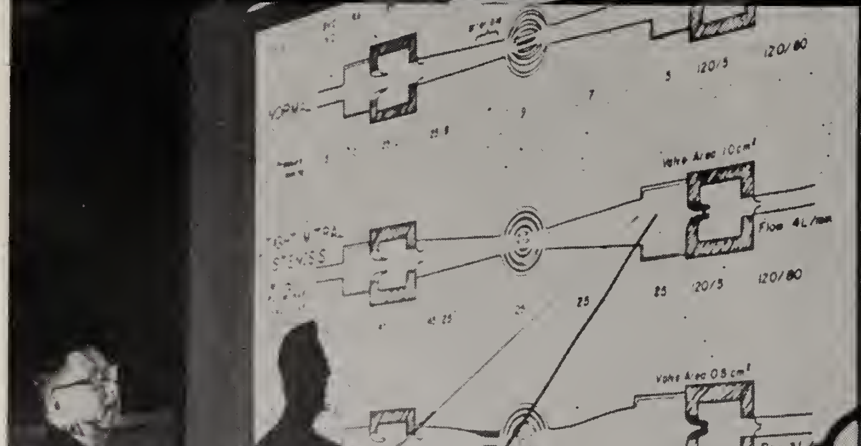
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120/80
Valve Area 1.0 cm²
TIGHT MITRAL STENOSIS
Flow 4L/min
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120/5
120/80
Valve Area 0.5 cm²
Flow 3L/
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25
120/5
120/80
normal individual (top)
and in a patient
with tight mitr
to blood flow. See

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RICHARD G. ULRICH, M.D., Harrisburg General Hospital, Harrisburg 17101.

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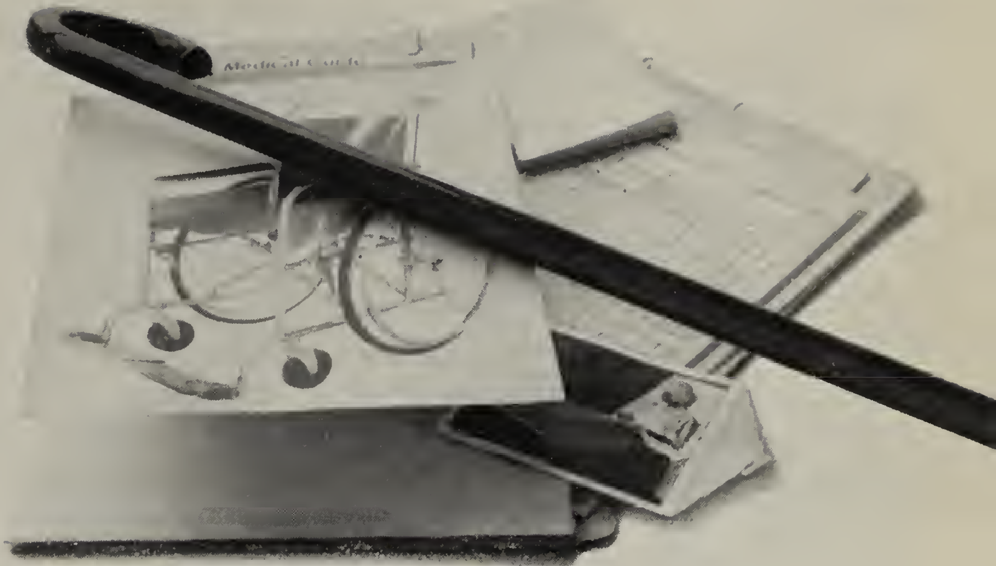

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B and C vitamins are part of therapy: An imbalance of water-soluble vitamins and chronic illness often go hand in hand. STRESSCAPS capsules, containing therapeutic quantities of vitamins B and C, are formulated to meet the increased metabolic demands of patients with physiologic stress. In chronic illness, as with many stress conditions, STRESSCAPS vitamins are therapy.

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Vitamin B_1 (as Thiamine Mononitrate)	10 mg
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Vitamin B_6 (Pyridoxine HCl)	2 mg
Vitamin B_{12} Crystalline	4 mcgm
Vitamin C (Ascorbic Acid)	300 mg
Niacinamide	100 mg
Calcium Pantothenate	20 mg

Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

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Internist and Psychiatrist, or General Practitioner interested in Psychiatry wanted for a modern 951-bed Psychiatric Hospital, with progressive treatment and research programs; salary up to $20,585, depending upon qualifications; excellent fringe benefits; licensure in any state and citizenship required; relocation expenses paid; Contact DIRECTOR, VA Hospital, Leech Farm Road, Pittsburgh, Pa. 15206. An Equal Opportunity Employer.

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Anesthesiologist—Board eligible, or certified. To head Department in 135-bed Western Pennsylvania Hospital. JCAH approved. Completely new modern facilities. Excellent recreational facilities winter and summer. Ski capital of Pennsylvania. Excellent schools. Area offers many advantages to professional persons interested in small town living. One hour from University of Pittsburgh Medical Center. Write Department 485, PENNSYLVANIA MEDICINE.

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Birtcher Portable Electrocardiograph and stand. Six years old. Excellent condition. $325.00. Write P. W. Frazer, M.D., Box 240, Warren, Penna., or EPPI, Henry Avenue and Abbottsford Road, Philadelphia, Penna., 19129.

House for Sale—White brick, ranch-type home. Three bedrooms, 1½ baths, 2-car garage. Scenic view; proposed Medical Center at Hershey ten minutes away. Will rent if necessary. Area Code 717-233-8711, Mr. Rapp.

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Psychiatric Residencies—Northern California Mental Health Center. Two hours San Francisco; vacation area; warm dry summer days, cool nights; close to Pacific beaches. Three-year accredited program; board training. Research and community psychiatry orientation; 1965 APA Achievement Award. Flexible third year, wide variety affiliations. Housing. Starting salaries to $12,588 depending upon alternate plans. Apply: Chief of Professional Education, Mendocino State Hospital, Talmage, California.

Approved Residency in Thoracic Surgery—(One year cardiovascular) July 1, 1967. Three years approved training in general surgery required. Large volume of cardiac surgery, including open heart surgery. Stipend $500.00 per month with full maintenance. Require ECFMG for foreign graduates. Apply: REVEREND MOTHER SUPERIOR, F.M.M., Administrator, St. Francis Hospital, Roslyn, L. I., N. Y. 11576.

Approved Residency—Two-year general practice; available January 1, 1967, in 244-bed general hospital, Philadelphia suburb. ECFMG certificate required of foreign graduates. Exchange visitor number available. Duty every fourth night and fourth weekend; active teaching program; $600 per month and full maintenance or extra living-out allowance. Write DIRECTOR OF MEDICAL EDUCATION, Delaware County Memorial Hospital, Drexel Hill, Pa. 19026.

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In My Opinion . . .

Six Months of Medicare

PL 89-97 now has been in effect six months: much is being said and written about it. Government seems to be in a position similar to a mother trying to persuade her child that spinach is good, and good for you.

Most doctors are unhappy about medicare chiefly because they believe it was unnecessary. They know that old folks and poor folks have had medical care when they needed it, and that "financial barriers" did not separate sick people from "adequate health care."

Most citizens are unhappy about it, including many over 65, because they don't like the enormous cost, the increase in taxes, and the obvious big step toward socialism.

So government writers and spokesmen have been very busy trying to persuade us (and themselves?) that this "spinach" is good for us. They point to Hill-Burton, Medical Education Aid, Nurses Training Aid, Mental Health Aid, etc., as some of the benefits from the Federal Government to the health of the American people, and try to persuade us that medicare is another big benevolent scheme for the aged, poor, neglected and sick. Of course doctors stand to benefit financially from medicare, in that many whom they care for gratis in clinics, welfare and public assistance programs will now be paid for under the new law. But modifications will be necessary.

It is estimated that the cost for New York State provisions alone under Title 19 of the law if approved, would cost $1.4 billion, so Congress is already studying ways to modify that. This is at variance with President Johnson's previously stated desires to expand the provisions of the law. It will be interesting to see what happens.

Meanwhile, it behoves us as physicians to be informed, to do our best to inform our patients, to suggest changes in the law or in procedures, through our advisory committees, as we can. And we do have influence through our patients and friends, when we ourselves are informed, that may result eventually in the election of a more representative Government, responsive to the will of the people, and not controlled by the dictates of small but powerful pressure groups.

WENDELL B. GORDON, M.D., *Pittsburgh.*

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FIGHT TUBERCULOSIS
and other
Respiratory Diseases

P.R.N.

Our Way of Saying . . .

New year resolutions are traditional. And just as traditional is the inability of most of us to keep these resolutions. Stop smoking. Work harder. Give up golf. Smile at wife at 6:15 a.m. All personal resolutions are indeed difficult to keep.

PENNSYLVANIA MEDICINE has made one big resolution. Involving a variety of smaller components, our promise is one we can state quite simply: a better state journal in 1967.

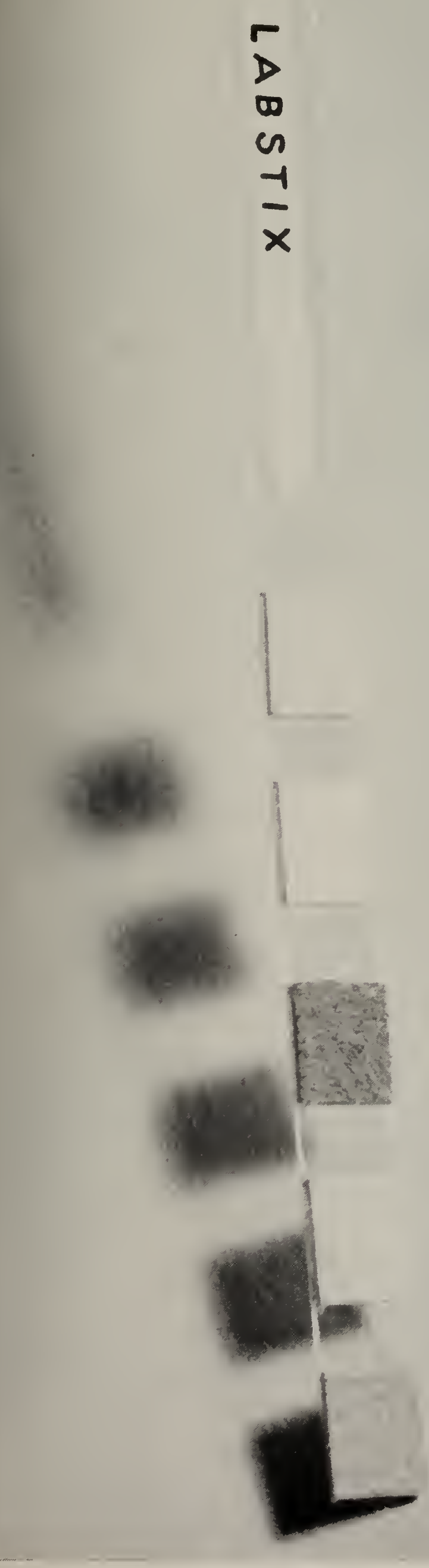
Admittedly, a little "cheating" has taken place, since the groundwork for our resolution was begun some six months ago. As a result, beginning with the January issue, you will have: more varied, top rated scientific articles (with reprints available almost immediately); feature articles in a medical-historical vein (four are already scheduled); items of a doctor-patient nature (three on communications are ready); a financial section (three features on estate taxes, gift exemptions and inheritances are now in type); a regular series providing legislative highlights and in-depth reporting of key political issues affecting our medical community (also ready for January publication).

Scheduled for next year is our conversion to the previously used "square back" cover. Three reasons for the change are (1) convenience to the libraries and other reference sources who cannot identify the present journal when it is shelf stacked, (2) time and (3) money, both of which have been pinched because of the heavy increase in pre-printed advertising material, which involves separate production operations not necessary with the square back.

Another facet assuring increased journal effectiveness involves the mailing date. Since the life of a monthly publication generally ends with the completion of the publication month, the journal will arrive by the 1st of each month (Post Office willing!).

As you can see, our resolution is for a more interesting, informative and valuable state journal. This is our way of saying to you, doctor, **Have an Enjoyable Holiday Season and the Best Year Ever in 1967.**

F. G. M.



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Glucose—provides a "Yes-or-No" answer for urine "sugar spill."

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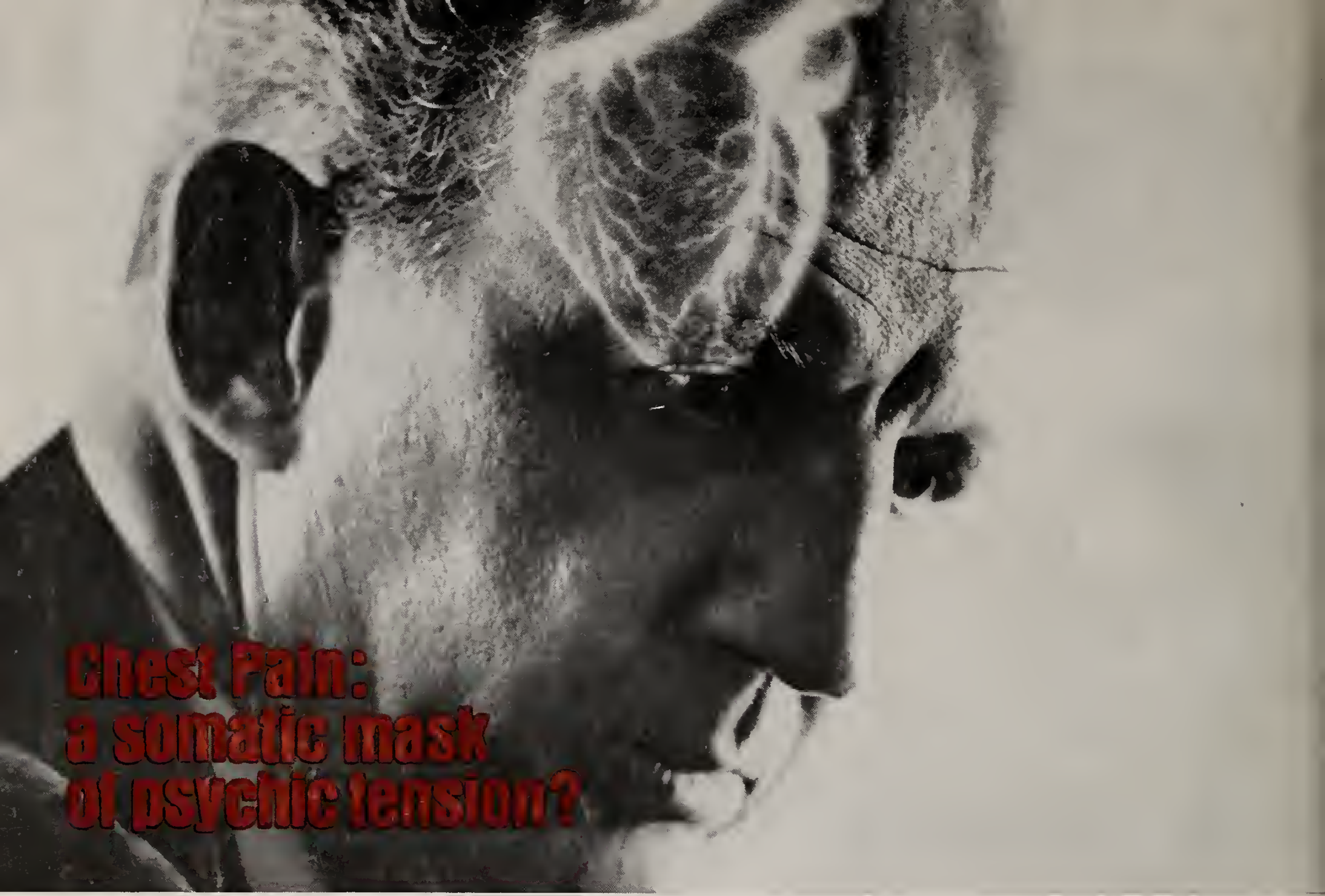

"Heart symptoms"—chest pain, tachycardia, arrhythmia—invariably alarm and preoccupy the patient, though they may be completely without organic basis. Such symptoms often are somatic masks of psychic tension, arising from constant encounters with stressful situations.

When the problem is diagnosed as emotionally produced, consider Valium (diazepam) as adjunctive therapy. Valium (diazepam) acts rapidly to calm the patient, to reduce his psychic tension and relieve associated cardiovascular complaints.

NEUROTIC FATIGUE—the chronic tiredness resulting from emotional strain which so often accompanies psychogenic "heart" symptoms—also can be alleviated by this highly useful agent. Valium (diazepam) often achieves results where other psychotherapeutic agents have failed.

Valium (diazepam) is generally well tolerated, and usually does not impair mental acuity or ability to function. If side effects such as ataxia and drowsiness occur, they usually disappear with dosage adjustment.

Contraindications: Infants, patients with history of convulsive disorders or glaucoma.

Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.

Precautions: Limit dosage to smallest effective amount in elderly patients (not more than 1 mg, one or two times daily) to preclude ataxia or oversedation. Advise patients against possibly hazardous procedures until correct maintenance dosage is established; driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. Warn patients of possible combined effects with alcohol. Safe use in pregnancy not established. Observe usual precautions in impaired renal or hepatic function and in patients who may be suicidal; periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances and hallucinations) and changes in EEG patterns. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.

Dosage — Adults: Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hrs, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d. Geriatric patients: 1 or 2 mg/day initially, increase gradually as needed.

Supplied: Tablets, 2 mg, 5 mg and 10 mg; bottles of 50 for convenience and economy in prescribing.

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for somatic symptoms of psychic tension

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